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The Point No Point Treaty Council: Innovations by an Inter-Tribal Fisheries Management Cooperative

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EXECUTIVE SUMMARY

This is a study of innovations in fisheries management and in organizational democracy. It focuses both on substantive management improvements sought by treaty tribes in western Washington, U.S.A., and on the mechanisms through which tribes share decision-making with one another, with all their members, and with state agencies.

The fisheries management system of the Point No Point Treaty Council, a management co-operative of four treaty tribes in western Washington State, is analyzed along two dimensions. (1) We first examine its ability to represent the varying interests of its member tribes, and to be accountable to them. The management system operates as a system of checks and balances between tribes and between the varying artisanal and commercial interests within the tribes. Although external political pressures, and the requirement to conform to management standards and procedures imposed by the court, creates pressure to centralize and bureaucratize decision-making, the management system has so far been able to maintain a fairly high degree of consultativeness and consensus-building among all parties and interests. Tribal values about equitable distribution of benefits between tribes, between large and small commercial units, and between commercial and artisanal sectors, are also under pressure. We examine adaptation and accommodation of the system to both management constraints and tribal values.

(2) Second, we consider the co-operative's ability to conduct effective management from a biological standpoint. We focus particularly on the local, wholistic perspective the co-operative contributes to management activities conducted jointly with the Washington Department of Fisheries or performed alone. In some cases, the primary involvement of tribes improves management; in all other cases the state's ability to make sound biological decisions is improved when balanced by the tribes' perspective.

We distinguish several reasons why various aspects of management are improved. Some of these concern the way in which the co-operative is able to reinforce conventional state controls of fishing effort with socio-political controls available only to local bodies. Other reasons concern the biological value of local management techniques. Examples of both types include the following: (1) The involvement of fishermen and communities in decision-making promotes more appropriate decisions, and therefore ones which are considered more legitimate and are more enforceable. (2) Decision-making at the local level permits a comprehensive integration of decisions about artisanal (food, ceremonial, and small-scale) fisheries with those about larger-scale commercial fisheries. (3) A comprehensive management system operating at the regional and local level brings checks and balances into play which insure accountability to resource conservation as well as to the long-term interests of the tribal communities. (4) Integrated data analysis and planning on a local/regional level permits more fine-grained and appropriate stock management, and a greater commitment to habitat protection.

The advantages of the management co-operative structure over individual tribal management is also considered in terms of: (1) a superior ability to develop a long-term, stable management program, (2) a superior ability to conduct economical and effective management, (3) a superior ability to promote communication and good will among tribes which would need to co-ordinate their management decisions anyway, (4) a superior ability to negotiate

with state and federal agencies from a position of strength and consistency, and (5) a superior ability to obtain consistent funding.

In conclusion, we discuss the future of the co-operative management system in terms of its options for adapting to or resisting pressures to recreate the governmental forms, structures, and relationships of the dominant society.

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CONTENTS

1. **Introduction** 1

2. **Methods and Objectives** 2

3. **General Objectives of the Point No Point Treaty Council** 3
   - -- Management responsive to fishing community
   - -- Add socio-political controls of effort
   - -- Manage artisanal and commercial together
   - -- Checks and balances to protect resource
   - -- Create regional co-ordination of local management

4. **Basic Dilemmas** 5

5. **Structure, Function, Policy Direction of PNPTC** 7

   5.1 Formation and Development: The Compact, Tribal Fishing Ordinances, the Constitution 7
   - -- formation 1976
   - -- compact among 4 tribes 1978, 1986
   - -- Klallam/Skokomish Hood Canal Agreement, out-of-court primary rights and over-lapping U&As settlement
   - -- Exclusive, primary, and in-common areas
   - -- role of board and fish committees
   - -- tribal fishing ordinances
   - -- fish committees, tribal councils, fisheries manager
   - -- constitution: board operation and mandate

   5.2 Management System of PNPTC: Representativeness 11
   - -- evolution of commissioner role
   - -- board composition and mandate
   - -- board relationship to fish committees & small fishermen
   - -- tribal fish committees, role and relation to tribal government
   - -- interface role of fisheries manager
   - -- policy concerns of tribal fish committee
   - -- administrative & technical planning by staff, Planning Teams 1 & 2
   - -- decision-making procedure in staff
   - -- tribal fisheries office staff
   - -- summary

5.3 Analysis of Systemic Features: Accountability 15
5.3.1 Each tribe accountable to other three
5.3.2 The PNPTC board accountable to tribes
5.3.3 Staff accountable to board, fish committees, and tribes
5.3.4 The fishermen are accountable to tribes & to the PNPTC
5.3.5 PNPTC board and staff are accountable to fishermen

6. **Management Activities of PNPTC** 21
Introduction: vertical perspective of tribes/horizontal perspective of government
Holistic watershed planning
Tribal involvement in horizontal perspective

6.1 Data gathering and analysis 23

6.2 Long-range comprehensive regional planning 23

6.3 Enhancement: benefits to artisanal, sport, commercial 25

6.4 Harvest planning 26
-- eutemporal openings
-- lower capital investments
-- small territory, low investment/operating costs
-- prohibition of seine gear
-- allocation to marine and river
-- summary/analysis of effort controls
-- weak stock management

6.5 Enforcement 29
-- traditional enforcement
-- adjustment to professional enforcement
-- comparison with state enforcement
-- protection of tribal enforcement officers
-- relations with state and federal enforcement
-- enforcement as community education
-- pre-season planning
-- tribal courts
-- summary

6.6 Habitat protection 33
-- Phase 2, Northwest Water Resources Committee
-- Puget Sound Salmon Management Plan, 1985
-- Timber/Fish/Wildlife Agreement 1987
-- Puget Sound Water Quality Authority: early action
-- summary

6.7 Allocation 35
-- tribal policies affecting fleet stabilization
-- general policies affecting allocation
-- informal mechanisms to ease allocation tensions
-- 1990 inter-tribal allocation agreement on chum
-- Area 9
-- Skok. big boat vs. small boat: working towards principles of equity
-- three types of successful allocation arrangement

7. Summary Analysis of the Effectiveness of PNPTC Managment 40

7.1 Combines artisanal and modern commerical fisheries 41

7.2 The tribal perspective and PNPTC perspective 41

7.3 Means to reinforce control of fishing effort 42

7.4 PNPTC as a management co-operative 42

8. Conflict Resolution: Adaptability 43

9. Summary: Overall Advantages of a Fisheries Management Co-operative 43

10. The Future: Can Democratic Consultation Survive Pressures For Bureaucratization and Elite Formation? 45

11. Conclusion 46

THE POINT NO POINT TREATY COUNCIL:

INNOVATIONS BY

AN INTER-TRIBAL FISHERIES MANAGEMENT CO-OPERATIVE

1. Introduction

In the last quarter of the 20th century, North American fish and wildlife management systems have experienced a qualitative increase in the demand for stakeholder participation in management decision-making. Conservation, habitat protection, allocation, and sustainable management are now the concern of much of the larger public, in addition to the traditional management constituencies which have attempted to influence decisions in the past (Kellert 1980, Lichatowich 1990). The public is willing to make substantial social and economic sacrifices to protect these resources (Kellert 1980, Pinkerton 1990), and there is less willingness to trust government agencies and institutions alone to define and protect the public interest.

In the forefront of the movement to act in partnership with government to manage fish and wildlife are Native North Americans in Canada and the United States. The sense of urgency to enter into joint management is particularly high for Native tribes in British Columbia whose aboriginal claims to management rights are still unresolved, and who see there may be few fisheries resources left if management improvements are not made swiftly. While continuing to press for recognition of their aboriginal title and rights through the courts or in negotiations with government, many B.C. Native groups also seek immediate alternative means to improve management. Research into new institutional arrangements for sharing management authority and improving management is one of the routes chosen to work actively toward this goal.

The innovative institutional arrangements which are the principle subject here create (1) shared decision-making among four tribes in a regional fisheries management co-operative in Puget Sound and (2) shared decision-making between the co-operative and the Washington Department of Fisheries (and other parties). Our analysis goes beyond the particular historical context of these arrangements to focus on general organizational features and dilemmas regarding (a) the requirements for democratic participation of members in decision-making, (b) the requirements for joint participation of state and local bodies in decision-making, and (c) the requirements for using sound biological data and principles in decision-making. Many of the dilemmas faced by the management co-operative are structural ones common to any attempt at co-management or organizational democracy (see Rothschild-Whitt and Whitt 1986). They involve reconciling competing and sometimes contradictory goals: the goals of achieving the substantive aims of the organization and the goals of democratic decision-making. The choices made, and what has resulted from them, should thus be of general interest to practitioners and scholars in both natural resource management and in organizational democracy.

2. Methods and Objectives

This account is based on four months of field research in Washington State in the fall of 1988 by a university-based anthropologist and a Nuu-chah-nulth commercial fisherman and political leader from the west coast of Vancouver Island. We conducted over 70 interviews, attended numerous meetings, read voluuminous background materials and documents, in addition to informal communication and conventional participant observation. A few follow-up interviews occurred in the summer of 1989, and materials have been updated through numerous telephone conversations during 1989 and 1990.

Recognizing that Washington tribal participation in management exists within a particular legal, historical, and jurisdictional framework, our primary purpose is not to duplicate the work of scholars such as Fay Cohen (1986) on the genesis and application of the 1974 U.S. v. Washington decision ("the Boldt decision"). This landmark decision provided the legal foundation for western Washington tribes' participation in fisheries management. We have chosen, rather, to document some of the co-operative working relationships and arrangements which have arisen out of negotiations since this decision. These are on several levels of legal formality and involve relationships beyond those which can be ordered by the court. They also include relationships other than those between state agencies and tribes.

Although some of these relationships are more likely to arise in the presence of court decisions which mandate them, clearly all of them can be models for possible relationships negotiable among parties focusing specifically on improving local management. They can be useful, for example, to British Columbia tribes in the same area seeking ways to share management of the same stocks. They could also help tribes, environmental organizations, communities, and trade unionists in British Columbia who seek new modes of planning together for a sustainable future.[1] Our purpose is primarily to understand the logistical and practical steps which make various kinds of co-operation and joint planning possible. The research led us to distinguish the following types of co-operation:

(1) Co-management through a management co-operative among tribes in the same area which share the same stocks and have overlapping recognized fishing territories.

(2) Co-management between this management co-operative and the Washington Department of Fisheries. We focus here less on the specific legal context which mandated co-management in Washington, than on the logistics of joint planning and negotiation of differing interests.

(3) Co-operative decision-making and research concerning protection of the riparian zone of fish-bearing streams between tribes, government agencies (Fisheries, Natural Resources, Wildlife, Ecology), environmental organizations, and logging interests (WFPA), through the Timber/Fish/Wildlife Agreement process.

(4) Co-operative local planning between tribes and local citizens groups for the protection of water quality in local rivers, estuaries, bays; also planning for the allocation of water between local users, involving a co-operative management plan.

(5) Co-operative enhancement of fish production and fish habitat between tribes and other local interest groups.

We focus here primarily on type (1), co-management among tribes in a local area, and secondarily on type (2), tribal/state co-management, with some reference to the other three types. More detailed analyses of other types is being published under separate cover.

3. General Objectives of the Point No Point Treaty Council

The Point No Point Treaty Council (PNPTC) resulted from the conviction of its founders that fisheries management problems are solved primarily by keeping management as close and responsive to the fishing community as possible, and by developing positive, highly communicative relationships between the management body and this community. Technical solutions should always be in the service of these goals, and have secondary consideration, they believed. This should come as no surprise to fisheries biologists, as leaders in this field have been making the case that fisheries management is really more about managing fishermen than about managing fish (Larkin 1988).

However, fisheries biologists are still trained to think of the management of fishermen primarily in terms of predator control. Thus, control of fishing effort is usually seen as central agency control of the aggregate impact of individual predators, not as part of a system of social and political control. Yet one of the most effective methods of controlling fishing effort both in aboriginal times, and in many modern fisheries (e.g. Morrell 1985, Freeman 1989, Acheson 1975), has been through the social and political mechanisms of communities to which fishermen belong.

While the more progressive agency fisheries managers acknowledge that "artisanal" fisheries in third world countries or hinterland enclaves in the first world are virtually self-managing, and economically beneficial (Emmerson 1980, Larkin 1988), they usually fail to recognize that mechanisms for self-management, with many attendant benefits, are equally possible in the most highly regulated modern fisheries. This account documents self-management and co-management in the highly complex Pacific Salmon fishery, involving multiple jurisdictions, international boundaries, and elements of artisanal fisheries alongside commercial fisheries. To our knowledge, this is the most highly sophisticated co-management system in North America. It demonstrates not only that artisanal fisheries and modern fisheries can be managed as part of one system, but that the co-management arrangement can benefit the entire fishery.

We analyze how control of fishing effort (and other aspects of management) is effectively conducted through community and inter-community socio-political mechanisms, combined with conventional management techniques. The point here is not that conventional effort control management techniques are completely abandoned, but that they are used in the context of, and subject to, socio-political controls. Conventional techniques become more effective because they use, and are sanctioned by, socio-political forms of control which are perceived as legitimate. The management system is based on the active participation of fishermen and community leaders as the chief policy-makers. Thus the Point No Point Treaty

Council (PNPTC) as a management institution performs both the function of classical predator control and also the function of actively involving its fishermen and member tribes in management at several levels. In the discussion below of the functioning of the PNPTC, we show how the various roles played by parties in this management institution create a system of checks and balances which make it possible for fishermen to be involved in management decisions, but held accountable to the long-term interests of the resource and of the larger group which depends on it.

In addition to the dual objectives of control of fishermen and control by fishermen, a third objective of the PNPTC founders was based on this practical consideration: it made little sense for some 20 tribes in the US v. Washington case area to have 20 individual fisheries management programs in areas where they had overlapping "Usual and Accustomed" fishing territories, and shared the same stocks. Even though Judge Boldt had recognized the tribe as the unit with legal management authority, and even though the founders supported the concept of "local control" and "decentralized management," they saw advantages in a few tribes together delegating management authority to a local management co-operative. The perceived advantages of co-operative local management over individual tribal management were the following: a superior ability to develop a long-term, stable management program, a superior ability to conduct economical and effective management, a superior ability to keep up communication and good will among tribes which would need to co-ordinate their management anyway, a superior ability to negotiate with state and federal agencies from a position of strength, a superior ability to obtain consistent funding. These are discussed in more detail below.

Bill Smith, the first Executive Director of the Northwest Indian Fisheries Commission (the co-ordinating body for the 20 tribes in the Boldt case area), facilitated the setting up of two regional management co-operatives before he retired from office. He had hoped the whole area would pursue this path, but only the Skagit System Co-operative (including three tribes) and the Point No Point Treaty Council (including four tribes) emerged. It is the latter fisheries management co-operative, hereafter called the PNPTC, whose structure and functioning we document here.

In fulfilling the practical objective of being regional enough to enjoy the five advantages mentioned above, the PNPTC founders still wanted to stay as close to the people as possible. The structure which emerged (which incorporated Smith's own Skokomish tribe) reflects this concern for fishermen's involvement at both the regional and local level. The management co-operative idea is thus a compromise between the practical requirements of effective management and the ideals of participatory democracy and local self-determination. Our discussion starts with the premise that the balancing of these two basically contradictory principles is difficult in the best of circumstances and requires an extraordinary communication effort. Winston Churchill's dictum: "Democracy is the worst system, except for any other." applies well to PNPTC's system of democracy, which combines elements of representative and participatory forms (Pateman 1970).

4. Basic Dilemmas

It is important to view realistically the full range of difficulties encountered by a regional management co-operative in achieving these divergent goals. The accomplishments of the co-operative must in fact be analyzed in the context of these difficulties. We begin the analysis by considering these as five separate dilemmas faced by PNPTC. We then consider how universal the dilemmas are to would-be participatory democratic institutions.

(1) **The Dilemma of Finding the Appropriate Geographic Scale For a Management Unit.** In order to balance successfully the goals of effective management and effective democracy, a co-operative must find the appropriate geographic scale for the regional management unit. A region for co-operative inter-tribal management should theoretically be large enough to effectively manage the relevant shared stocks (particularly migratory Pacific salmon, which involves mixed stock fisheries and interceptions), but not so large as to create major communication problems among the tribes. The Point No Point Treaty Council area covers 630 miles of coastline and the two most distant tribes are each about an hour and a half drive from the co-operative's central office near Kingston (Figure 1). PNPTC thus manages its members' fisheries in all the numbered marine areas on the map: Areas 4B, 5, 6C, 6, 6D, 6B, 7, 6A, 9, 9A, 12, 12A, 12B, 12C, and 12D.

At times, the geographic distance between the tribes has stretched the communication resources of the PNPTC quite severely. The trade off between comprehensive enough regional planning and intense enough communication is exceptionally difficult, because of both objective and subjective elements in communication. At times there is no substitute for a face-to-face contact which cannot easily be achieved in an area this large. This universal dilemma is obviously not limited to fisheries management situations.

(2) **The Dilemma of Balancing Interception and Terminal Fisheries.** The member tribes of the PNPTC include three "intercepting" tribes (the Klallams) which fish salmon stocks as they pass through their "Usual and Accustomed" areas (U&As) in the Strait of Juan de Fuca. (The Boldt decision recognized the right of tribes to harvest only in their U&As). PNPTC also includes one "terminal" tribe (the Skokomish), whose Usual and Accustomed area is Hood Canal. Many of the chum and coho salmon stocks fished by the intercepting tribes in the Strait eventually make their way into Hood Canal to their natal rivers, if they are not intercepted en route. PNPTC has to balance the interests of these two different situations in deciding how much chum and coho should be harvested in interception fisheries, and how much in terminal fisheries. This involves difficult decisions concerning both equitable allocation and sound management. The allocation principles desired by the tribes, and by intercepting and terminal fishermen within each tribe, may not always be easily translatable into sound management practices: compromises may be required.

(3) **The Dilemma of Adjusting to the Legal Imperatives of the Boldt Decision.** To make equitable decision-making about where to harvest these fish even more difficult, the Boldt decision and its follow-up cases require that each run be split evenly with the non-Indian fishery (also called "the state fishery"). When the state fishery

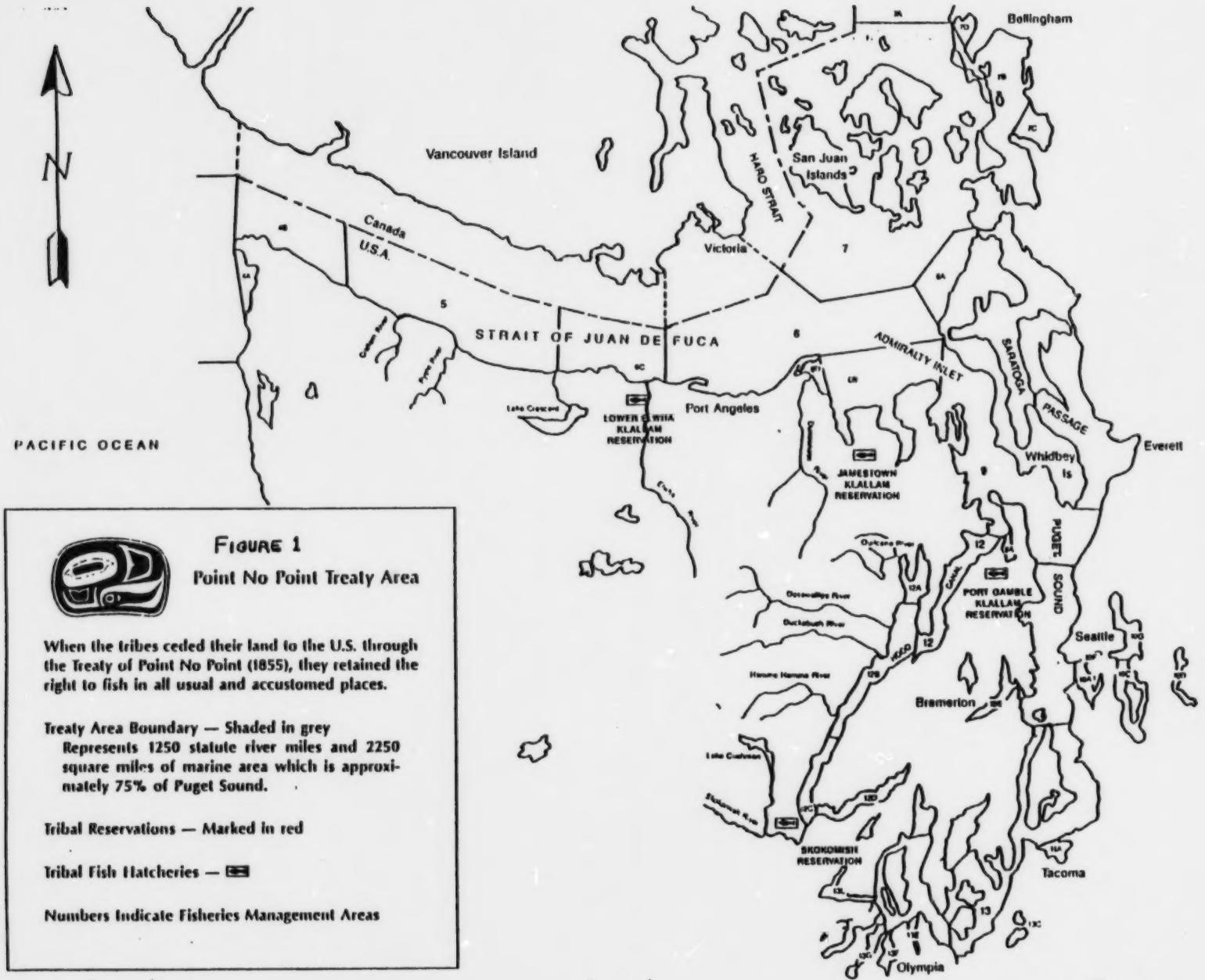


FIGURE 1

Point No Point Treaty Area

When the tribes ceded their land to the U.S. through the Treaty of Point No Point (1855), they retained the right to fish in all usual and accustomed places.

Treaty Area Boundary — Shaded in grey
Represents 1250 statute river miles and 2250 square miles of marine area which is approximately 75% of Puget Sound.

Tribal Reservations — Marked in red

Tribal Fish Hatcheries —

Numbers Indicate Fisheries Management Areas

attempts to harvest its half of the Hood Canal chum run in northern Hood Canal earlier in the season, the Skokomish tribe is forced to attempt also to take a large part of its share there. While this is no problem for the large Skokomish boats, it is more difficult for the smaller less seaworthy crafts: in the northern Hood Canal fishery, weather is rougher and the trip is longer. Yet, if the Skokomish and PNPTC did not have this northern opening, the Skokomish fleet in general would lose a large part of the value to the catch, since the chum depreciate in value as they move farther south into the Canal. This competitive situation has forced many terminal small boat fishermen into more capital-intensive and financially and physically risky forms of fishing. It has also compounded allocation problems between the mobile large-boat fleet, and the less-mobile small boat and river fishermen in the terminal area.

(4) **The Dilemma of Balancing the Demands of Crisis Management with Accountability.** The situation of PNPTC over the last 13 years has imposed a heavy requirement for rapid and efficient decision-making. Chief among the reasons for this are insufficient staff for the amount of work being done and the high priority that must be given to crucial negotiations. These include international and inter-state forums (the Pacific Salmon Commission and the Pacific Fisheries Management Council), efforts to protect fish habitat (which are in a dead heat with real estate and industrial development, both threats to fish habitat), and in the last few years, negotiations over inter-tribal allocation and shellfish. During the first 10 years, it also included frequent legal challenges to state management decisions. These consumed a great deal of staff time which could have otherwise been spent on management and communications. Because the political situation has been characterized by high levels of conflict, frequent court cases, and the continuing development of new areas of negotiation, the organization has existed in a climate of crisis management. When the 1974 decision required the tribes to assume management responsibilities immediately, a management system had to be developed very quickly. Given the urgency of sheer survival in these crises, thorough consultation and communication with member tribes, fish committees, and fishermen at large tend to receive a lower priority. Although this dilemma appears highly specific, it is a variant of the universal dilemma of any democratic organization which must work with outside parties on a schedule beyond its control. In this situation, there is tremendous pressure for the organization to operate more as a representative democracy (in which a few decide how to deal with issues "efficiently" because of short response times) than as a participatory democracy (spending more time accounting for decisions with members, and including them in decision-making. See Pateman 1970).

(5) **The Dilemma of Carrying the Full Burden of Inter-tribal Mediation in Addition to Fisheries Management Responsibilities.** The burden of communication and maintenance of good will among its four member tribes falls mostly on the shoulders of PNPTC. Some of this burden was traditionally carried by regional inter-tribal events such as disc gambling games, inter-tribal marriage celebrations, and secret society initiations. Elmendorf (1960:303) and Gunther (1927) single out these events as occurring particularly between the Klallam and Skokomish tribes in the 19th century. Elmendorf also notes cordial relations between the Klallam and Skokomish while both were fishing in Hood Canal. These events, and their accompanying inter-tribal feasting and gift-giving served in former times to cement alliances, reduce conflict, and increase communications and exchange among these communities. With

the exception of some regional sports tournaments and a tribal annual picnic,[2] these kind of events have not occurred on a regular inter-community basis for at least a generation. The current annual "Pow-wows," based on Plains Indians customs, are less regional than state and even inter-state events. In short, PNPTC receives little assistance in local inter-tribal mediation from traditional secular and spiritual celebrations which once served this function. The unusual burden of communication it carries must be viewed in light of this.

All of these dilemmas are in some sense universal to modern member-driven co-operative institutions, although dilemmas three and five also reflect peculiarities of the legal and cultural situation in Washington State which may not generalize as broadly as the others. Awareness of all the dilemmas is nonetheless helpful in forming expectations about what is likely to result from particular choices.

5. Structure, Function, and Policy Direction of PNPTC

We analyze the structure, function, and policy direction of the PNPTC management system in light of these dilemmas, using the criteria of representativeness, accountability, effectiveness, and adaptiveness. The first two criteria, representativeness and accountability concern mostly the relationship between staff and policy-makers, and the way in which relationships between differing interests are reconciled. The second two criteria, effectiveness and adaptability, mostly relate to the question of the quality of fisheries management and formal conflict resolution mechanisms. We thus continue our concern with (1) how this management system can be a democratic, consultative method of reaching decisions which take a number of concerns into account. We are equally concerned with (2) how this management system in both its internal workings and its external relations with state agencies and other groups achieves superior fisheries management. Policy direction will be analyzed as expressed in both structure and function.

5.1 Formation and Development: The Compact, Tribal Fishing Ordinances, the Constitution

The PNPTC was formed in 1976 through the combined efforts of Bill Smith, first Director of the Northwest Indian Fisheries Commission, and representatives from the Skokomish and Port Gamble Klallam tribes. At the time the Jamestown Klallam had not received federal recognition as a tribe. Ron Charles, chief counsellor at Port Gamble, worked actively throughout 1975 to persuade the more distant Lower Elwha Klallam tribe to join (see Figure 1). After a series of visits and discussions, he received the Lower Elwha tribe's support and active participation in working for a mutually beneficial definition of all the tribes' Usual and Accustomed fishing territories. These were synonymous with the territory covered by the Point No Point Treaty between the four tribes and the United States through Governor Stevens in 1855. Although anthropological testimony for the US v. Washington case had established the location of the traditional fishing grounds and stations of each tribe, the tribes still had to decide how to relate to one another where these traditional locations overlapped.

By 1978 the tribes had negotiated an agreement among themselves, called the Off-Reservation Fisheries Management Compact, which specified the authority and responsibility of the management body, the PNPTC, and its member tribes for fisheries management outside reservations but within the Point No Point area. The Compact is not binding beyond its own life as an agreement. A member tribe could withdraw from the agreement by re-negotiating its share of the fisheries management financing, although it is generally acknowledged this would be difficult and complex, and that funding is more easily obtained by larger, amalgamated units.

After the Jamestown tribe received federal recognition in 1981, and various court orders had clarified primary and secondary rights in the overlapping Usual and Accustomed fishing areas of several tribes, a revised compact was renegotiated. For simplicity, this discussion is based on the revised 1986 compact, which incorporated court orders since 1974, and the 1983 Hood Canal Agreement among the four tribes.

The Hood Canal Agreement defined more clearly how Klallam and Skokomish tribes would handle rights to their traditional fishing grounds where these overlapped. The Agreement was precipitated by Skokomish dissatisfaction with purse seining by the Suquamish tribe in Hood Canal. The Suquamish are not a member tribe of the PNPTC; the Skokomish are a member tribe of the PNPTC, and the chief and original occupants of Hood Canal. The Suquamish lived on Puget Sound and also had Usual and Accustomed fishing areas (U&As) in Hood Canal, but their regulations permitted use of the highly-efficient purse seine gear. This gear was prohibited in ordinances of all the Point No Point tribes, in line with their policy of reducing capital expenditure and spreading fishing opportunities as far as possible (see below).

The Skokomish based their successful claim to the right to curtail Suquamish seining in Hood Canal on their "primary fishing rights" in Hood Canal. Subsequent to the original 1974 U.S. v. Washington decision, the court was asked to recognize the "primary" rights of some tribes to exclude others from fishing in territories occupied chiefly by them, even if the others' U&As there had already been recognized by the court. Aboriginally, as the chief occupants of Hood Canal, the Skokomish extended fishing privileges to spouses, in-laws, and friends from other tribes. Such invitational fishing was a way of maintaining relations of generalized reciprocity with neighbouring tribes, but did not imply rights on the part of non-resident tribes. As the Skokomish prepared to take this matter to court, the three Klallam tribes (Port Gamble, Jamestown, Lower Elwha)--who were the other member tribes of the PNPTC--decided to negotiate an agreement with the Skokomish about their own use of Hood Canal. (Although non-resident like the Suquamish, they had made greater use of Hood Canal than the Suquamish at treaty times). This agreement was then adopted as a court order, as are all agreements which work out principles of U.S. v. Washington.

The Hood Canal Agreement among the four PNPTC tribes affirmed the principle of primary rights, but said the Skokomish would suspend the exercise of primary rights in the northern half of Hood Canal (Areas 12, 12A, and 12B) as it relates to the Klallams (but not the Suquamish). In exchange the Klallam tribes suspended any use of their U&As fishing area in the southern half of Hood Canal. In addition, the Klallams asked the court to remove the Skokomish River from the Klallam's previously-recognized U&As. The agreement thus helped resolve some of the problems created by overlapping U&As, a problem which exists throughout the U.S. v. Washington case area. (As for the Suquamish, they may request

permission from the Skokomish to fish Hood Canal, but the Skokomish, as holders of the primary rights to Hood Canal, may withhold permission at will).

The Hood Canal Agreement is a good example of the way PNPTC member tribes have settled their differences out of court. It amounted to a statement that the tribes felt they had a better chance of finding a fair expression of their rights by working together than by asking the court to impose a solution. Put another way, tribes which had a long history of sharing the same territory and participating in a system of regional economic and cultural exchange felt they had much to lose by entering into legal conflict. Conversely, they had much to gain by attempting to continue the exchange for mutual benefit. While this part of their settling was adopted as a court order, the Compact, which goes further in defining how overlapping U&As will be shared, was not. This might be said to represent where the tribes draw the line between reserving sovereignty to themselves and agreeing to support the higher good of their mutual benefit.

The Point No Point Off-Reservation Fisheries Compact defined the way in which the four tribes reserved exclusive fishing areas to themselves, and also how they controlled regulations in their overlapping U&As. In the Compact, each tribe reserved for itself an exclusive fishing area, and/or a primary fishing area. In addition to exclusive and primary areas, the Compact defined "in-common" areas.

In its exclusive fishing area, the tribe has the right to completely exclude the other three tribes (although it may invite other tribes to fish in exceptional years). For the Lower Elwha, the exclusive area is the Elwha River and nearby Freshwater Bay; for the Jamestowns, it is part of Dungeness Bay (6D); for the Port Gambles, it is Port Gamble Bay (9A); for the Skokomish, it is the Skokomish River and the lower half of Hood Canal (12C and 12D), including a few small streams which drain into it.

The tribes set their own regulations for fishing in their exclusive areas, limited only by sharing arrangements with Washington Department of Fisheries (WDF) and conservation needs. WDF reserves the right to close a tribal fishery for conservation reasons, and has done so in recent years with one tribe outside the Point No Point area. The 1989 Centennial Accord between the state of Washington and the treaty tribes now also recognizes the tribes' rights as sovereign entities to close a state fishery for conservation purposes.

In addition to its exclusive area, each tribe has primary management authority over a much larger territory, the use of which is shared with the other tribes. These areas comprise basically the smaller freshwater streams and some bays along the shoreline traditionally occupied by the tribe. The entire shoreline of the PNPTC area is thus the primary management area of one of the four tribes. A tribe cannot exclude the other three tribes from these areas, but it can set the policy and regulations which govern their fisheries in these areas. Importantly, these regulations are developed in consultation with other tribes' staff and with the PNPTC central office, which actually issues the regulations. The idea of the primary management areas is thus to co-ordinate management policies for the entire area, while giving the highest priority to the "home" tribe in its own territory.

To the PNPTC board (composed of two representatives from each tribe) and staff in the central office near Kingston falls the task of regulating the remaining "in-common" areas,

which are the marine fisheries in the entire area, except for the southern half of Hood Canal. A combined, overall perspective was considered necessary for managing these fisheries, composed of major sockeye runs en route to the Fraser River, plus coho, chinook, chum, and steelhead runs headed for Puget Sound, Hood Canal, and local rivers. The PNPTC two senior staff and one board member participate regularly in negotiations within the Pacific Salmon Commission, and with other agencies on the Pacific Fisheries Management Council.[3] Other tribal members, PNPTC board members, or tribal fisheries managers may be called into these forums, when their vital interests are at stake. Senior staff, tribal fisheries managers and board members negotiate with other tribes dependent on the same runs, and with WDF (which also regulates these runs for non-treaty fisheries). PNPTC central office's role in these forums helps it advise and support the tribal fisheries manager in the task of regulating in-river runs which are inevitably partially intercepted by in-common fisheries.

Policy for in-common fisheries is developed by the board of eight tribal representatives. PNPTC staff, as the administrative and technical arm, transforms policy into practice through regulations. The executive director and tribal fisheries managers combine both policy and administrative/technical functions, although their central task is to take direction from the tribes.

Each tribal fisheries manager is concerned with PNPTC policy primarily as it regards allocation in in-common areas affecting tribal primary and exclusive areas. Otherwise, the fisheries managers work with the PNPTC central office staff at the second stage of planning in-common fisheries. Tribal fisheries managers have less direct access to information and expertise on these fisheries than do staff at the central office. Their role is primarily to react to central office proposals in explaining how appropriate they will be in the tribal context. The smoothest working relationships occur when the fisheries manager keeps the central office well informed about the tribal perspective on an ongoing basis, by daily telephone contact, sharing tribal fish committee meeting minutes, etc. In this way, first stage planning of in-common fisheries occurs on a well-informed basis with a deeper understanding of tribal issues.

Tribal fisheries managers and tribal fish committees can also generate proposals about how to shape the timing and location of in-common fisheries, based on either technical or policy concerns of that tribe. These concerns are discussed in the weekly PNPTC staff meetings, and if there is consensus among the four tribal fisheries managers, the tribal proposal is accepted and implemented. Otherwise, the senior biologist makes the final decision. In the case of a political controversy, the executive director is called in to interpret PNPTC board policy.

Tribal fisheries in the exclusive and primary areas are regulated by the fishing ordinances of each tribe. These were developed by the tribal fish committees and ratified by the tribal councils of each tribe. The fisheries manager of each tribe issues weekly in-season regulations based on the procedures outlined in the ordinances. Many of the provisions of the ordinance cover participation in in-common fisheries as well. Ordinances deal with: the definition of who is eligible to fish, regulation and identification of vessels and gear, roles and responsibilities of tribal fisheries managers and fish committee members, procedures for recording data on fish sales and deducting tribal fish tax (currently five percent of gross commercial catch), prohibitions on sale of fish to buyers who will not follow data and tax

collection procedures, general tax provisions, and enforcement procedures. So far none of the Point No Point tribes limits the number of fishing licenses it will issue. Many managers feel this day is not far off, however.

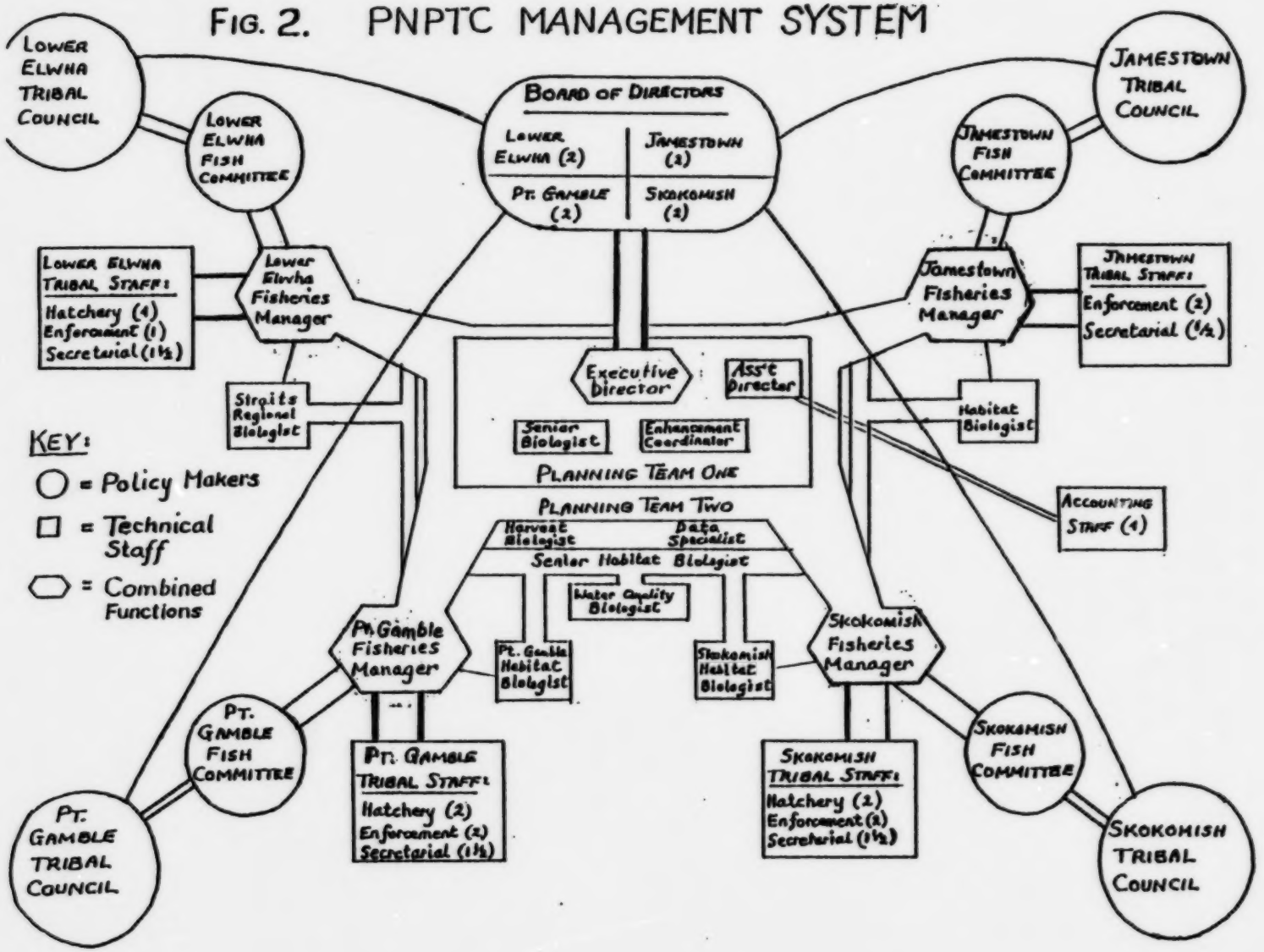
In addition to the Compact, activities of the PNPTC are also governed by the Point No Point Treaty Council Constitution. While the Compact lays out the specifics of substantive agreements, the constitution regulates procedural matters. The constitution's primary purpose is to assure acceptable standards of decision-making and board performance, both so that the PNPTC can operate smoothly and also so that other agencies understand it to be a legitimate, stable, and responsible institution. The constitution is the document, ratified by all four tribes, which delegates authority to the PNPTC board to carry out its mandate. It specifies in particular the operation of the board of directors, which governs the operation of PNPTC and sets policy. Operations regulated by the Constitution include: number of board members from each tribe (two), term of office of board members (one year), manner of appointment to the board (appointment by member tribal council), quorum (one delegate from each tribe), honourary attendance and voting power of tribal chairmen, number and timing of meetings (at least four, not in July-September), voting procedures, authority delegated to PNPTC by tribes, procedure for repeal of authority delegated to PNPTC, officers of the board of directors (election, terms, eligibility, responsibilities), commissioner and alternate commissioner to the Northwest Indian Fisheries Commission (rotation of positions among four tribes, delegated authority to, responsibilities of), executive director of PNPTC (authority, responsibilities), dispute resolution, and ratification. Most importantly, of course, the Constitution designates the Point No Point Treaty Council as the body responsible for creating and carrying out fisheries management policy for in-common fisheries. In the next sections we explore how the management system set up by the PNPTC balances the interests of the affected parties and how it maintains both representative and accountable management.

5.2 Management System of PNPTC: Representativeness

The management system of PNPTC detailed in Figure 2 developed gradually since its beginnings in 1976. Growth and change has occurred mostly in the addition of central office staff, and in the definition of the role of the executive director, the commissioner, and the tribal fisheries manager. The commissioner is the PNPTC representative to the Northwest Indian Fisheries Commission. At one point the executive director and commissioner positions were combined. With the growth of responsibilities in negotiations in the Pacific Fisheries Management Council and the Pacific Salmon Commission, the commissioner position has become more important and time-consuming. The commissioner, now chosen from the ranks of the tribal representatives to PNPTC, participates in these forums alongside the executive director and senior biologist. S/he also represents the PNPTC to the Northwest Indian Fisheries Commission. Changes in the tribal fisheries manager role are discussed below.

The basic organizational structure of the PNPTC board has remained constant, however. It consists of two (originally one) representatives from each of the four tribes. The majority of board members are fishermen-owners of marine big boats (over 20 feet). Board members also include tribal community leaders attuned to water resources and habitat protection issues. This contributes to a broader view of fisheries management than simply harvest management.

FIG. 2. PNPTC MANAGEMENT SYSTEM



The board's mandate is to make general management policy decisions in the off-season, not during fishing. It therefore meets about every six weeks during the five-six month winter season (although some fisheries occur in at least part of the territory during this time). During this winter season the board has time to do long-range thinking and consultation with communities about the development and maintenance of policies. This process goes on outside the passions and crises of in-season management decision-making, a time when it is more difficult for fishermen to separate their own immediate interests from the long-term best interest of the whole fleet and the tribes. The majority of interviewees believe that the system works well in its policy-making function. It is undoubtedly helped by the fact that the founding visionaries who "have the big picture" have been active on the board: they have maintained a commitment to the process of considering the larger good of the whole PNPTC area in addition to the interests of their own tribes. They have been willing to give and take in working out peacefully the divergent interests of the four tribes. The extent to which the vision and goals of the founders has or has not been institutionalized so that their replacements on the board may continue in a like manner is discussed below.

The board members are appointed by the tribal council of each tribe, and do much of their community consultation with the fishermen of each tribe. In one tribe, much of the consultation goes on with other large-boat marine fishermen at the docks while they mend their nets. The small boat and river fishermen of this tribe tend to feel that the PNPTC board delegates do not sufficiently consult them, and that the delegates should attend tribal fish committee meetings.

One tribe appears to have resolved the potential under-representation of the small fishermen simply by having the same large boat fisherman serve on both the PNPTC board and the tribal fish committee. Because this individual communicates well with the small boat fleet, and is highly respected by large and small boat fishermen alike, the small fishermen in this tribe feel represented on the PNPTC board. This solution appears to depend on personality, however, and may disappear when this person leaves the board.

The issue of sufficient representation from "small" fishermen can be related to changes in the fishery since 1984. The present predominance of large boat fishermen on the PNPTC board is based on the original development of the fishery rather than on any intent by the founders: the most knowledgeable and respected leaders already had large boats or purchased them shortly after 1974. Between 1974 and 1984, the runs were small, the tribes were still struggling with the state over interceptions which prevented them from taking their 50 per cent of the runs, and few fishermen were making significant incomes. "Small" fishermen ventured into larger boats, but few were able to make ends meet. The number of large boat owners and their role in policy-making was not particularly contentious. But when the tribal catch began to increase in 1985, some of the "small" fishermen began to question whether they were getting their fair share, and whether they were being fairly represented.

This trend has been most notable in the Skokomish tribe, which has suffered the greatest dislocations in both the small and large boat fleet. Figure 3 shows that Skokomish is the only PNPTC tribe which had fewer large boats in 1990 than in 1982. Furthermore, the proportion of large boat Skokomish fishermen varies as much as nine percentage points in one year. Regression analysis also reflects this instability, yielding a considerably higher standard error

Fig. 3: Ratio of Big Boats to Total No. of Fishers

YEAR	LOWER ELWHA			PORT GAMBLE			SKOKOMISH			JAMESTOWN		
(1)	Fishers	Boats	Ratio	Fishers	Boats	Ratio	Fishers	Boats	Ratio	Fishers	Boats	Ratio
		> 20'	(%)		> 20'	(%)		> 20'	(%)		> 20'	(%)
1982	134	11	8.2	136	18	13.2	144	38	26.4	56	2	3.6
1983	116	11	9.5	115	13	11.3	149	26	17.4	51	2	3.9
1984	95	12	12.6	106	9	8.5	137	16	11.7	35	3	8.6
1985	124	10	8.1	130	11	8.5	154	26	16.9	63	3	4.8
1986	81	7	8.6	129	12	9.3	142	26	18.3	43	5	11.6
1987	102	7	6.9	183	12	6.6	185	36	19.5	49	5	10.2
1988	74	8	10.8	138	15	10.9	119	33	27.7	49	9	18.4
1989	85	10	11.8	185	20	10.8	154	29	18.8	49	9	18.4
1990	98	11	11.2	198	20	10.1	206	33	16.0	40	8	20.0
Avg. Annual Ratio - Tribe			9.7			9.9			19.2			11.2
Average of 4 tribes			12.5			12.5			12.5			12.5

(1) Data was unavailabe for years prior to 1982

REGRESSION ANALYSIS OF TRIBAL RATIOS, 1982-90 (Annual ratios for each tribe adjusted to reflect equal numerical weighting)				
Constant	-583.40	379.4291	69.5167	-4999.53
Std Err of Y Est	2.5238	2.0148	3.4769	2.7336
R Squared	0.1081	0.0681	0.0006	0.8796
No. of Observations	9	9	9	9
Degrees of Freedom	7	7	7	7
X Coefficient(s)	0.3000	-0.1861	-0.0287	2.5237
Std Err of Coef.	0.3258	0.2601	0.4489	0.3529

of prediction for the ratio of large boats to total fishermen in the Skokomish tribe compared to the others, i.e., a much greater degree of variance around the trend line for 1982-1990.

Such fluctuations result partially from the "terminal" location of the tribal U&As (subject to more prior interceptions) and partly from the fewer species fished. These two factors make both small and large Skokomish fishermen more vulnerable than the Klallams to fluctuations in run size. The larger runs in the late 1980s have increased risk-taking, the degree of exposure, and the number of large and small boat failures. The Skokomish small fishermen have aired their frustrations through their fish committee. Although they are not represented on the PNPTC board, they were included in the 1990 Klallam/Skokomish allocation negotiations. The agreement resulting from these negotiations and further development of internal Skokomish policy will stabilize inter-tribal allocation and area accessibility for the Skokomish small boats and appears to have decreased tensions and the sense of underrepresentation (see "Allocation").

The small boat and river fishermen are not without representation, however, even when they are not directly consulted by PNPTC board members. This sector of fishermen is more numerous than the marine fishermen, but it is difficult to estimate by how much. Figures 4 and 5 show that 72-89 per cent of the total tribal fishing licenses is 1988 were not attached to marine boats over 20 feet, but this figure is far larger than the percentage of regularly active "serious" small fishermen who attempt to make a living at least seasonally from fishing. Small fishermen can use the tribal fish committee as a policy-making instrument to some extent. They usually constitute at least half of the fish committee of each tribe, which is chaired by the tribal fisheries manager. The fish committee and fisheries manager advise the tribal council through policy recommendation. In some tribes, their recommendations are virtually rubber-stamped. In others, tribal governments (which also include fishermen) are slower to ratify fish committee actions. Some of the small fishermen's frustration over representativeness may result from unresponsive tribal government. Greater responsiveness tends to result as the committees become more experienced and develop more credibility.

The tribal fish committee differs from the PNPTC board in several important respects. First, it is concerned purely with one tribe's interests. As such, it is a useful body for emergency and in-season consultation on important decisions when the PNPTC staff wishes to know a particular tribe's feelings about a specific matter. Sometimes it is not possible to act on such concerns immediately. The fact that concerns are registered immediately is important, however, in developing the next week's, next month's or next year's regulations. The tribal fisheries manager provides the major interface, because this individual not only attends all tribal fish committee meetings, but also the weekly PNPTC staff meetings. The fisheries manager can communicate to PNPTC staff both policy and technical concerns of the tribe, as well as vice versa, and ideas s/he has for problem-solving. (Two of the four fisheries managers are women).

The tribal fish committee also differs from the PNPTC board in its greater focus on management of exclusive and primary fisheries. Policies on river and bay fisheries in these areas are the chief concern of the fish committee. It develops mechanisms, for example, for how tribal members share or rotate access to a limited number of river or bay set-net locations.

1985–1990 PNPTC Fishers

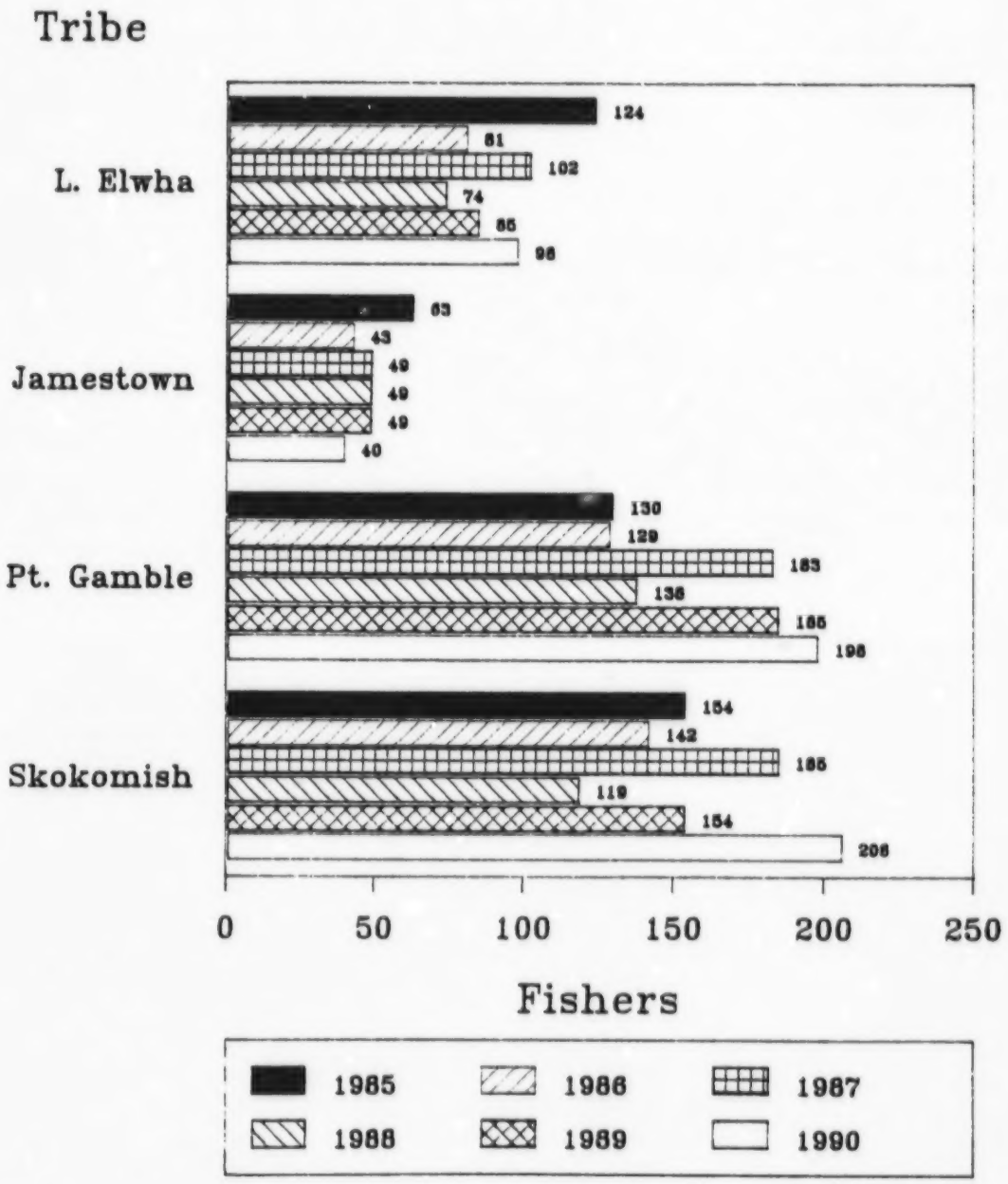


Figure 4

1985–1990 PNPTC Boats (>20 ft.)

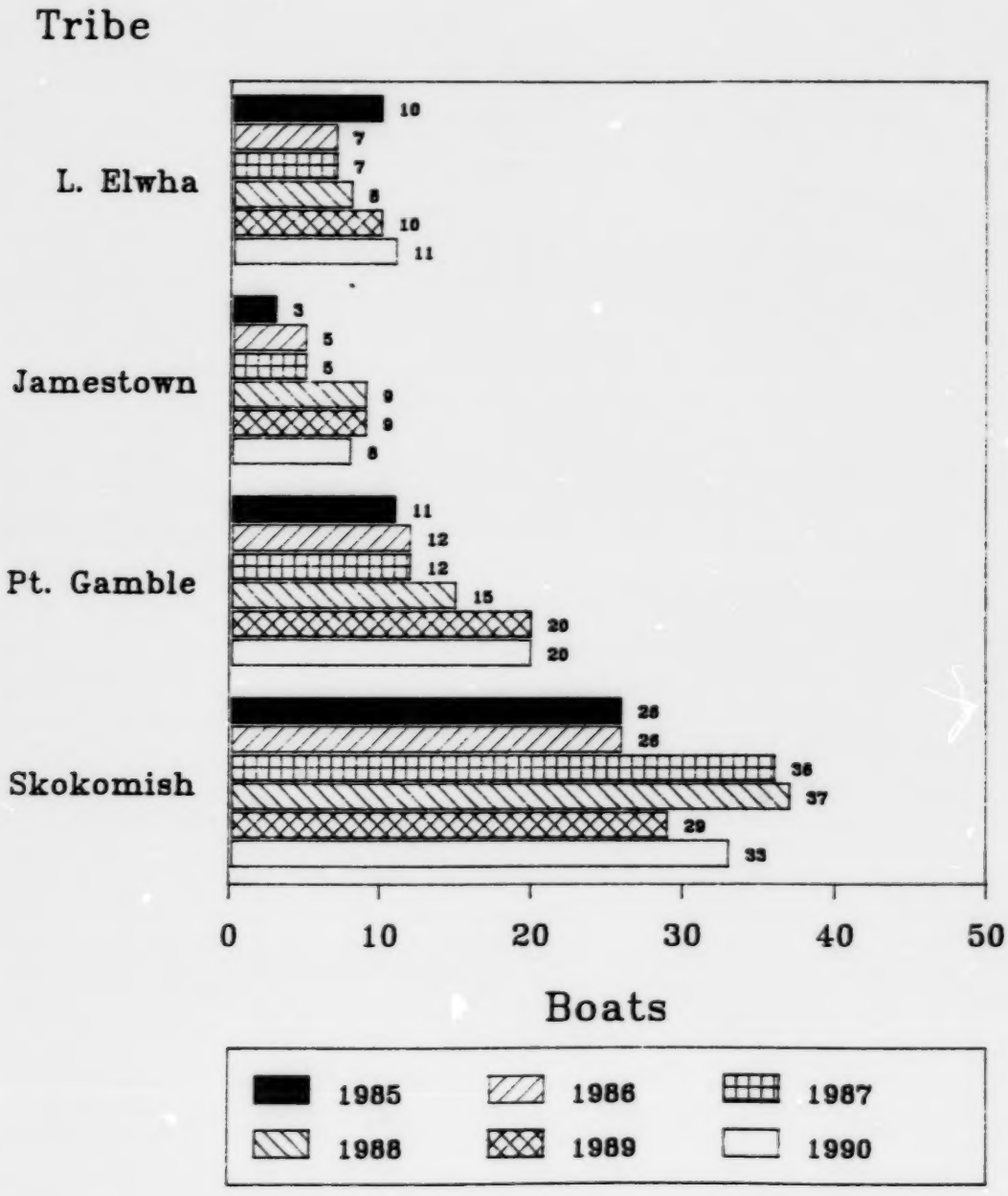


Figure 5

Fish committees also tend to be the forum in which bay and river fishermen lobby for their interests in a greater share of the marine fisheries, where river runs are intercepted by the marine fleet. As such they have their own direct input into PNPTC staff interpretation of PNPTC board policy. Their direct communication with staff through the fisheries manager also gets communicated to the board through the executive director, the administrative staff person who attends all board meetings. Large boat fishermen also sit on the fish committee, which can be a forum for discussion and debate between them and the small boat and river fishermen.

Aside from policy initiatives by the PNPTC board and the four tribal fish committees, administrative and technical planning initiatives come from a smaller and larger staff planning team. Planning Team 1 is made up of the executive director, the assistant director for finance, the fisheries management biological co-ordinator (the senior biologist), and the fisheries research and enhancement biological co-ordinator. Planning Team 2 includes the above actors and the fisheries managers of the four tribes (each located at a tribal fisheries office in the tribal communities). Both teams draw on technical staff in the central office, including harvest management and biostatistics specialists, a data management specialist, a habitat management specialist, and a water quality specialist. Four additional central office staff work on clerical and accounting tasks, bringing the central office staff to 16. Initiatives from administrative and planning staff (which could originate from any staff) tend to revolve around technical innovations related to stock modelling and solving harvest management and habitat problems.

The decision-making process in Planning Team 2 could be called a balancing act between political messages from the tribal fisheries managers (two of whom are also regional biologists) and the central office biologists' opinions. The senior biologist, consistently on staff since 1976, usually makes the final decision, unless the issue is highly controversial. In this case, the executive director participates in the debate and influences the decision. The senior biologist plays the "tough guy" role of protecting the resource. As one tribal fisheries manager commented, "We had lots of disagreements, but I'll say this: he has never let a run be overfished." This strong voice in the central office represents the long-term interests of the resource in planning and in issuing fishing regulations.

Staff at the four tribal offices, who are also paid through the PNPTC budget (and hired jointly by tribal and PNPTC representatives) totals 27. These include the tribal fisheries manager, the fisheries secretary, the hatchery manager and his two assistants (three of the tribes operate hatcheries), a habitat biologist, two enforcement officers, and a part-time enrollment and court clerk. The smaller Lower Elwha and Jamestown tribes share their habitat biologist and two enforcement officers, but also have an additional regional biologist between them. The latter position exists partly because the fisheries managers at these two tribes are not biologists. Total staff at the four tribal offices is almost double the central office staff, although each tribe alone has less staff than the central office. The $1.9 million budget required to staff PNPTC operations at both the central office and the four tribal offices is negotiated annually with the Bureau of Indian Affairs. The U.S. Congress is required to appropriate funding to carry out the U.S. court's 1974 decision. Small amounts of funding come from other sources.[4]

In summary, the PNPTC management system, including two types of policy-making bodies and five offices with technical staff, is representative in several ways. An eight-member board of large boat fishermen and community leaders represents the four member tribes to the central office. Four tribal fish committees composed of large and small boat fishermen--and sometimes including other tribal members--advise their tribal governments, and provide direct input into central office technical staff decisions through their fisheries manager. The PNPTC technical staff of 16 in the central office and 27 in the tribal fisheries offices is headed by the executive director. The senior biologist insures that conservation and allocation concerns are not violated. Pivotal actors making this representative system work are the executive director, who attends all board meetings and translates board policy into staff directives, the senior biologist, and the tribal fisheries managers, who are the interface between tribal concerns and central office staff planning. These actors must use both technical and policy capacities to provide the transmission between tribal and PNPTC goals and concerns. The system of representation has succeeded in uniting the tribes until now partly because of the personal values, vision, and dedication of the founding PNPTC board members. As this cohort of leaders begins to leave the board, the PNPTC may need to institutionalize some systems of communication which have depended on personalities and friendships until now. The 1990 Klallam/Skokomish allocation agreement is an example of this type of institutionalization which is replacing less formal arrangements.

The PNPTC management system does not represent all interests in the same way. The PNPTC board has greater representation in overall and in-common fisheries. The tribal fish committees have greater representation in exclusive and primary tribal fisheries, and in the making of regulations. The next section analyses the significance of these various types of representation in terms of access to decision-making and accountability of decision-makers to different interests.

5.3 Analysis of Systemic Features: Accountability

While the above discussion shows how different interests are represented, it does not adequately explain how they interact. One conceptualization of the management system would focus on organizational structure, assuming a clear hierarchy of roles and functions, and examining such features as "chain of command" and "lines of authority." It is common for observers to conceptualize tribal management after the Boldt decision as a stereotypical, simplistic adoption of rationalized Weberian bureaucratic principles. For example, a much-cited article by Rita Bruun (1982) makes the case that

> The Boldt decision upholds the right of the tribes to regulate their own off-reservation fishing, yet this right is contingent on Indian willingness and ability to adopt the governmental forms and structures of the dominant society....such structures recreate the relationships of the dominant society.

While it is true that the court-ordered enforcement of tribal rights has carried a procedural price tag for the tribes, Bruun has underestimated the ability of tribes to create organizational forms which also express tribal values and concerns. As one tribal member put it: "We have taken the best of both systems and made what we need." In Weberian terms, the tribal management institution which has evolved demonstrates that bureaucratic rationality (use of

rationalized, hierarchical procedures for decision-making) can be successfully combined with traditional rationality (use of traditional practices and values simply because they are traditional) and value rationality (respect for certain substantive goals or values). Tribal traditions in this case are often synonymous with current tribal values and goals: (a) participation of all tribal members in the system, and the right of all tribal members to some share of the benefits; (b) the right of tribal members to benefit in different ways, either through artisanal or commercial fisheries; (c) broad consultation and consensus decision-making; (d) the protection and enhancement of stocks returning to tribal rivers. This does not mean that bureaucratic rationality is entirely absent from the management system, but simply that it is confined to the administrative staff sector of the PNPTC.

If one steps outside the internal administrative staff workings represented in the center of Figure 2 - which are organized hierarchically - the larger system can be viewed as a set of interlocking mechanisms for consultation and consensus-building between diverse sources of power and responsibility located in several places. The PNPTC as a whole is thus not a hierarchical structure, but rather a dynamic system which incorporates and balances different forms of decision-making, allowing power and initiative to flow in more than one direction.

This is so because the system was set up to serve the common interest of four sovereigns without taking undue power from any. Likewise the system was intended to involve fishermen, but not put their interests above, or in contradiction with, the interests of the community or the resource. Finally, the system is intended to allow a complex mixture of technical and policy considerations to interact. The system can be more accurately portrayed by a flow chart than by an organizational hierarchy tree (see Figure 2).

To analyze how the system functions, we first consider five ways in which one feature of the management system acts as a check or balance to another feature. In other words, how is one party or function in the system accountable to others? Second, how does this accountability serve tribal values about equity, the importance of artisanal fisheries, and the protection of local stocks? In other words, how does accountability built into the system prevent tribal values and interests from being overcome by the values and interests of the dominant society? This list does not exhaust the forms of accountability, but gives representative examples.

5.3.1 Each tribe is accountable to the other three tribes in decisions affecting the stocks on which they all depend. Even if one tribe wished to adopt management practices which would threaten to overfish or eliminate a stock, another affected tribe would not allow it. This principle works at both the policy level (within the PNPTC board) and on the ground at the individual fisherman level. For example, when the fishermen of one tribe suspect the fishermen of another tribe of violating regulations, they will inform the enforcement officer of the other tribe. Fishermen more readily inform on the violations of other tribes than on those of their own kinsmen. In this and other ways, tribes, and individual fishermen within different tribes, act as watchdogs over one another's conduct in in-common fisheries.

5.3.2 The PNPTC board is accountable to the tribes. The most obvious ways this happens is in the appointment by the tribe of representatives to the board. Tribes

also participate with PNPTC central office staff in the hiring and firing of PNPTC staff who serve in the tribal fisheries office. Tribal members invariably ask prospective staff difficult questions in the job interview regarding how they would view the tribal interest either in general or in particular issues. A successful applicant has to convince tribal members that s/he will stand up for tribal concerns as well as in-common ones. The executive director of the PNPTC also has to get each tribal council's approval of the fisheries budget of that tribe and the overall PNPTC budget, before these are submitted to the funding agency. A tribe which feels unfairly treated in PNPTC decisions has the ultimate weapon of threatening to withdraw its funding support from the PNPTC.

5.3.3 The PNPTC planning, administrative, and technical staff which actually carries out the management is accountable to the PNPTC board and tribes. This occurs first through hiring and firing procedures. Staff are also exposed to the views of tribes through the weekly staff meetings with tribal fisheries managers, and when they are invited to attend tribal fish committee meetings to discuss issues. While staff does the major initiating of programs because of their access to information, these programs will ultimately not "fly" if they meet with strong resistance from fish committees, fishermen, or tribes. The fisheries manager of each tribe informs the central office PNPTC staff if an issue must be put to a tribal fish committee before a decision is made. The executive director reserves the right to override this wish if the matter is too urgent. In such a case, he acts as an intermediary between a tribal council and a fisheries manager, negotiating and building consensus among key representative people in the tribe, "or taking the flack." In this instance, staff-initiated programs or management techniques may change in the following season after fuller discussions with the affected fish committee and the fisheries manager. The executive director normally consults tribal fisheries managers on the easiest decisions, consults board members and other key people on more difficult decisions, and consults tribal council chairmen on the most contentious decisions. Tribal council chairmen are already honorary PNPTC board members, and in two cases are active board members who read the central office information package mailings and keep abreast of ongoing issues.

The executive director role in building consensus requires objectivity, fairness, and a mediator's ability to separate the people from the problem. Such qualities were often attributed to Northwest Coast chiefs by ethnographers and ethnohistorians. A powerful and effective chief was a person who could unite potentially warring factions and promote trade and potlatching. The way the tribes have structured their interaction probably depends as much or more on such traditional skills as it does on imposed structures.

The tendency of conventional bureaucracies to accumulate power and eventually usurp it from the stakeholders and public it serves is also undercut by ideological factors in this situation. Because the tribes' ownership of the resource is a constant issue in negotiations with the state, the staff is continually reminded that it is the tribes, not the staff, who own the resource. The senior biologist indoctrinates new staff with the lesson and constant reminders as well. Finally, as the descriptions in this text indicate, the conventional hierarchical, authoritarian mode by which a bureaucracy operates is influenced here by the environment of tribal decision-making forms which surrounds it. And the tribes are now beginning to influence the way state biologists think about decision-making and factors in decisions, even through simple transfer of personnel. When biologists work for the Washington Department of Fisheries after

working for the tribes, they have a significantly different perspective. They have been exposed to how tribes make decisions, and the whole array of issues and factors which must be considered in managing a local ecosystem wholistically for the health of local stocks. In short, tribal values and decision-making modes have an under-recognized impact not only on PNPTC staff decision-making, but even on the Washington Department of Fisheries.

5.3.4 The fishermen are accountable to the tribes and also to the PNPTC. Although fishermen act as policy makers on both the PNPTC board and the tribal fish committees, they act in the name of the overall regional and tribal good. The PNPTC board representatives consult with their tribes and fishermen. Likewise the fish committees are only advisory bodies to the tribal councils. The councils must ratify important decisions made by the committees. As one community leader and fisherman put it: "The Boldt decision was not supposed to benefit only males between the ages of 18 and 60." The fishery is managed to benefit the whole tribe. The tribe makes decisions about whom it will licence and how the tribal fisheries tax will be spent.

5.3.5 The PNPTC board and staff in the central and tribal fisheries offices are accountable to the fishermen in their making of fisheries policy and regulations. Fishermen constitute either the majority or an important segment of the employed members of each tribal community. A very important fisheries issue affecting either the community or inter-tribal relations will precipitate a general fishermen's meeting. No decision-making body can completely ignore the fishermen's wrath, if decisions are too unacceptable to them. While PNPTC central office staff most often take the lead in designing management and regulations, they are far less sheltered from fishermen's reactions than a government agency. Long-term compliance by fishermen depends on the ability of the PNPTC staff (including the tribal fisheries managers in this capacity for in-common fisheries) to convincingly present their case and educate the fishermen to the need for certain management practices. Sometimes in the process of doing this, PNPTC staff are persuaded by the fishermen to try another method. Board members play a role in convincing fishermen of the need for certain overall policies, but they are not normally blamed when unpopular regulations result from these policies.

Not surprisingly, this is the most stressed area of accountability, since it most closely resembles the longstanding adversarial relationship between government agencies and fishermen which pre-dated the Boldt decision. It is also the area in which the individualism of the dominant society can be in direct conflict with the tribal interest in stock protection, i.e., fishermen's individual earnings are pitted against conservation concerns. Many fishermen during the fishing season act more as individuals than protectors of the tribal interest. They tend to view in-season and emergency regulations (made by staff) with much greater hostility than the general policy (made by fishermen board members) which these regulations express or interpret. It only takes one staff mistake to reinforce fishermen's suspicion the PNPTC is just another Department of Fisheries. After decades of management by WDF, fishermen have only gradually grown to see tribal and PNPTC harvest management as legitimate, and representative of their collective long range interests.

While there has been a considerable shift in attitude on the part of many fishermen, the transition is more gradual for others, especially those who have not participated directly in the management system. There may always be a core group of fishermen who will resent even the wisest and most well-founded regulation. Comparison of the nearer and more distant tribes suggests, however, that this core group has gotten smaller in direct proportion to the amount of time central office managers have been able to spend communicating with fish committees, and/or that fishermen have felt well-represented in the management system.

Time is a scarce commodity, however, for PNPTC staff, no matter how much they might like to spend the time on communication which is needed to build greater participation and trust. Intractable and complex problems persist in demanding the attention of PNPTC senior staff in the areas of inter-tribal allocation outside PNPTC, the Pacific Salmon Commission, the Pacific Fisheries Management Council, shellfish negotiation and recently shellfish litigation. It is difficult for senior staff not to give these issues priority, because on them hangs the question of whether there will even be fish for the PNPTC tribes. We heard complaints from fishermen, fish committee members, and former tribal staff that central office staff did not respond frequently enough to requests to attend tribal fish committee meetings. For their part, central office staff have worked increasingly to develop the tribal fisheries managers' role, as joint PNPTC/tribal staff, to include the responsibility of explaining in-common policies and regulations to fishermen in their tribe, and of supporting these regulations. Fisheries managers are asked to "stop the buck here" and deal with the problems as much as possible on the tribal level. The fisheries manager position thus requires a unique blend of strength, flexibility, diplomacy, and resilience. Not surprisingly, there is high turnover in this exceptionally demanding position.

The turnover in this position is also related to the way the fisheries manager position has evolved over time. In the early days of PNPTC, as tribal ordinances were being developed, this role was more frequently filled by tribal members. As the tribes began to catch a greater share of the fish, the role required more and more ability to manage conflict, both among gear sectors within one tribe and also between tribal fishermen and fishermen in the other three tribes (as represented by board policy and central office regulations). The increased need for conflict management happened at the same time senior central office staff were required to participate more actively in international forums, and could spend less time travelling to the tribal offices. In earlier times the central office senior biologist would be called in to be "the tough guy," holding the line on conservation decisions. Nowadays, the fisheries managers themselves are asked to play this role.

Most tribal members found this position too stressful; there was high turnover in this position, especially in the two tribes most distant geographically from the central office. Turnover was doubtless compounded by the fact that these two tribes also have higher turnover in tribal governments (new council members elected annually) and fish committees than the other two tribes. Hence more effort is required from both the central office and the tribal fisheries office to nurture good working relationships with new and changing personnel.

The fisheries manager position is now more frequently filled by a non-tribal biologist, who is asked to explain and support central office planning and programs to the fish committee and tribes. At the same time, the fisheries manager is perceived by the individual tribe as having primary responsibility to it. The fisheries managers must communicate tribal concerns

to the central office, both through direct communication with the executive director, and through communication at weekly staff meetings and in daily telephone conversations with central office biological staff. More than ever, the position requires a consensus-builder who can effectively communicate the political requirements of the tribe to the central office, and the biological requirements of in-common management to the tribe.

In situations where a tribe, or the small fishermen of a tribe, feel underrepresented, the fisheries manager is under pressure to be a political advocate for the tribe, and has greater difficulty gaining tribal support for biological requirements advocated by the central office. In this situation, the biological requirements are inevitably perceived by tribal members as instruments of domination by the central office and/or the PNPTC board. For the system to be workable in this situation, there must be either an increase in representation at the policy level or an increase in communication at the staff/technical level. When either or both of these requirements are fulfilled, as is the case with some PNPTC tribes, the system works through good will and diplomacy being exercised by both the fisheries manager and the executive director, so that accountability can flow both ways.

Former fisheries managers who pointed to the desirability of greater communication support from the central office sometimes also suggested that opportunities for this could be created by annual clam bakes and retreats or meetings between central office staff, fish committees, and tribes. In other words, there may be institutional aids which could ease friction points in the system. The other outstanding PNPTC staff need mentioned in interviews was the need for appreciation and recognition for dedication. Staff were aware that they were not as well-paid as state employees with the same or easier jobs. They accepted this willingly, but wanted more "emotional rewards" in the form of acknowledgement of their hard work and dedication. This particular form of "accountability" is more difficult to create in a system where everyone is overworked and underpaid. It returns us to the fifth basic dilemma: that fact that PNPTC carries the full weight of inter-tribal mediation. It is possible that more social events hosted by the tribes, by PNPTC, or jointly, would produce more oil for friction points, more opportunities for recognition and appreciation, and more occasion for communication, tension release, conviviality, and a sense of mutual accountability. In traditional times, these occasions helped nurture the good will and mutually beneficial exchange which has long existed among these tribes, the same good will on which the system depends to operate today.

This section has shown a range of mechanisms through which the PNPTC board and staff are accountable to the fishermen. Examples drawn from different tribes have illustrated both how the system can work optimally, and the difficulties it can experience, mostly through insufficient communication. The gradual improvement of communication over time suggests that education and increased funding play important roles in making the system workable.

In summary, the PNPTC as a management system represents all the key actors: the tribes, the large boat fishermen, the small boat and river fishermen, and the technical staff which develop management programs. A number of mechanisms make each of these parties accountable for its activities to the other parties which have an interest in the fishery. The management system has a high degree of both representativeness and accountability. Policy and technical initiatives flow from several representative sources, but are accountable to other key actors in the system. The major policy initiatives regarding in-common fisheries come from the

board, but these are less contentious than the in-season regulations and technical innovations by the central office staff. The key role-players who attempt to ease tension at these friction points in the system are the executive director as mediator and negotiator between the tribal councils, the board, and fisheries managers, and the tribal fisheries managers, as mediators between the tribal fish committees and the central office staff. Finally, the responsibility of the senior biologist, as well as the structure of decision-making and accountability, insures that the resource is protected from over-exploitation, and that long-term policy development is removed from seasonal stresses.

Finally, the degree of accountability in the PNPTC management system demonstrates that, contra Bruun, the relationships of the dominant society have not been simply recreated throughout the management system. Although central office internal administration and joint decision-making in state, inter-state, and international forums operate largely on rational bureaucratic principles, the PNPTC management system as a whole operates to serve values and priorities which differ in fundamental ways from those of the state. In the following section we explore the substantive values and goals of tribal management about equity, the importance of artisanal fisheries, consensus, and the protection of local stocks as they are expressed through management decision-making in the areas of data collection and analysis, harvest planning, enhancement, long term development research and planning, habitat protection, enforcement, and allocation. Not only is this the real test of whether and how management is accountable to the tribes and fishermen, but it is also the test of the quality and soundness of management decisions made by this management co-operative.

6. Management Activities of PNPTC

We have discussed how PNPTC is a representative system, and how it has also built in at least five forms of accountability. We turn now to the question of whether the management functions it performs are effective, and how the organization adapts to the evolving political and biological requirements of management.

PNPTC is engaged in all aspects of fisheries management: data collection and analysis, harvest planning, enhancement, long range development research and planning, habitat protection, enforcement, and allocation. It participates in some of these activities jointly with WDF, while others it conducts independently. To all these activities it brings a tribal rather than a state perspective. We first examine how this perspective tends to affects management decisions.

The most important overarching difference between the tribal and state perspective is that the tribes' view is vertical, while the state's is horizontal. That is, the tribes are concerned with a comprehensive, wholistic, in-depth understanding of everything in their particular area or region which affects fisheries management. Because they have rights to harvest only those runs which historically returned to, or passed through their accustomed fishing areas, they are dependent on the health of these particular runs, and the entire environment which supports them. For the all-important anadromous salmon which spawn and sometimes rear in fresh water, water quality and quantity in rivers, lakes, and estuaries is key to survival and productivity. Likewise, fish abundance and seasonal availability occur because many

genetically-distinct runs or races return to particular river systems at specific times of the year. If a run is eliminated by overfishing or habitat degradation, a tribe cannot simply move fishing operations to another area for the time period of that run, as a state-licenced fisherman can. The tribe has rights to fish only in its Usual and Accustomed areas, so it must see its survival as linked to the survival of very particular runs.[5]

For this reason the tribes fought for the court ruling which mandated salmon management on a river-by-river, run-by-run basis (Hoh v. Baldrige, 1981). The "watershed planning" perspective of the tribes, as it is sometimes called, has now won considerable support from the state, but it is still the tribes who notice, care, and initiate action on threats to watersheds and their local stocks and marine fishing areas.

If the tribal perspective is imagined as a narrow, deep slice of the fisheries pie, the state perspective is a thin, horizontal layer of the entire pie. WDF management must cover a much larger area and more species, but cannot do so in depth in any one area. Nor does WDF integrate harvest management with habitat protection: the two divisions are not even located in the same city. Even hatchery production has not been co-ordinated in the past with harvest management; likewise co-ordination among different hatchery sites and enhancement projects has been lacking (Waldo 1981).

WDF is chiefly concerned with supplying fish to a growing recreational fishery and a highly mobile commercial fleet. Before the 1980s, it had more interest in overall volume of fish produced than in particular runs. The production of large state and federal hatcheries is now understood to have caused some of the overfishing or elimination of many wild salmon stocks (Walters 1988). When these hatcheries were planned, little was understood about the negative impacts of hatchery stocks on wild ones. Later it was recognized that smaller wild stocks would be taken in too-great proportion if fished during a fishery on a large hatchery return, which also did not require a large escapement for perpetuation of the run. Juvenile hatchery releases of one species would sometimes compete with or even prey upon wild fry of another species. It is principally the tribes which have brought such issues to public attention and led the fight to co-ordinate hatchery production and protection of the remaining wild stocks.

The vertical/horizontal distinction should not be taken to mean that tribes are not also concerned with the larger perspective. In order to protect particular weak wild runs from overfishing, tribes have been forced to become involved in the issue of how these fish are intercepted in Alaska, B.C., and in Washington/ Oregon ocean troll fisheries before they reach Puget Sound. The tribes therefore have very strong representation on policy and technical committees of the Pacific Salmon Commission. The PNPTC senior biologist serves on the chum technical committee of the PSC and one of the PNPTC tribes' chairmen serves on the Fraser Panel of the PSC, for example. The Northwest Indian Fisheries Commission, composed of regional representatives from all 20 tribes, co-ordinates tribal information and research in these important forums, sends technical staff to meetings, in addition to doing its own data compilation of tribal fisheries. It provides a horizonal perspective to its member tribes when one is required.

Considerable tribal involvement in the horizontal perspective is viewed by some as robbing scarce and precious resources from tribal management at home, however. Many in the PNPTC area fear that the NWIFC is already developing into a tribal Department of Fisheries,

usurping too much power and funding from the tribes, and tilting the balance of management more toward the horizontal than the vertical axis. The existence of this fear underlines how much the vertical perspective represents lifeblood to the tribes. Ironically the PNPTC tribes may be the ones most aware of this danger, because they struggle daily to maintain the delicate balance between central office and tribal office.

Our discussion of management activities by PNPTC will use a few representative examples to illustrate how the vertical perspective affects management decision-making in key areas.

6.1 Data gathering and analysis

Since the early 1980s, harvest-related data sharing has not been a problem between tribes and state. All harvest data is punched daily into the central University of Washington computer and is available to tribes and state equally. Much of the data on run size estimates is produced by ongoing state monitoring programs, whose procedures are well known and understood. PNPTC has re-evaluated the surveys on how these data are collected and suggested methodological changes. These have been accepted by the state.

Wherever possible, PNPTC uses data which is already produced by another agency, but conducts its own independent analysis. For example, PNPTC uses different methods than the state in developing its run size predictions. The state uses overall average past production data for an entire area (e.g. Puget Sound), and then splits this down into six regions, of which Hood Canal is one. In contrast, PNPTC builds up a prediction for Hood Canal by looking at as many individual systems within Hood Canal as possible. In many years, the state and PNPTC may have a similar total. If important changes occur in particular streams, however, PNPTC will factor this into its estimates and is more likely to predict accurately a deviation from average production.

PNPTC staff have developed a number of in-season run size updating methods on which the state has relied for in-season management since 1983. Furthermore, with the recent addition of habitat biologists to PNPTC staff, comprehensive stream surveys are now being done by tribes--often in co-operation with others--collecting data not only on run size, but also on habitat condition and potential remedial action. Comments one biologist, "It's amazing, but even after all these years of management, we don't have this very basic information."

The PNPTC is thus chiefly responsible for the collection of vital data which the state has been unable to collect, and for conducting analysis which provides an important check for the state's methods in some years. Tribal and state biologists alike declare that the sophistication of management models has greatly improved since the tribes became involved in management. This is partly the result of the non-monopolistic nature of management since 1974: managers perform better when they know other managers will be questioning their data and analysis. Improvements also result from the simple fact that more funding has been directed at management through the addition of tribal staff, and related activities such as the Pacific Salmon Commission. Federal legislation implementing the Pacific Salmon Treaty generated research money. The tribes as managers contributed significantly to the finalization of the treaty after many years of unsuccessful negotiation (Cohen 1986), and they now contribute to its implementation.

6.2 Long-range comprehensive regional planning

The PNPTC tribes were among the first in the US v. Washington case area to develop and successfully negotiate a regional management plan for part of their area. PNPTC began lobbying the state about the necessity for a Hood Canal Management Plan in 1977, when the state suddenly changed harvest and enhancement methods in Hood Canal. In response to the Boldt decision, the state moved commercial fisheries into Hood Canal, which had been a sportsmen's preserve since the 1930s. State planners wanted to rapidly increase fish production, especially chum, for the new tribal fisheries and the non-treaty fishermen who were supposed to now catch only 50 per cent of the runs. According to a PNPTC biologist, "the changes in production would have had a devastating effect on the tribe, because it would have eliminated certain species, boosted other species, and totally put them out of business." At least there had been some "decent" chinook runs in Hood Canal up to this time.

Highly alarmed at state plans, the PNPTC demanded participation in any such planning, and the Hood Canal Advisory Committee was formed of tribal and state biologists to formulate better alternatives. Non-technical tribal representatives worked on the parallel Hood Canal Management Committee. In this process there was an excellent working relationship between the PNPTC central office and the most affected tribe. Nothing very definitive happened until 1979, when the tribes won the appeal of the Boldt decision in the US Supreme Court, sending a clear message to the state that it had to seriously co-operate with the tribes. After this, the state urged that a formal plan be produced, and the first Hood Canal Plan was negotiated and finalized by 1980. Drafters of the December 1980 Salmon and Steelhead Conservation and Enhancement Act thought of the Hood Canal Plan as a model for inter-agency co-operation when setting up guidelines for how co-operative planning bodies could qualify for federal funding to practice enhancement (Robert Turner 1989, pers. com.).

Truly co-operative regional management planning had not quite arrived, however. When the state suffered funding cuts in the early 1980s, it decided unilaterally to modify major portions of its Hood Canal chinook hatchery operations in a way which favoured the recreational fishery over the objections of the tribes. PNPTC tribes sought resolution of the dispute through the courts, but a negotiated settlement solved the problem by creating the current version of the Hood Canal Management Plan, adopted as a court order in 1986. Any change in hatchery production now requires an amendment to the Plan, filed with the court. The 1985 Puget Sound Salmon Management Plan, finally negotiated between WDF and all the Puget Sound tribes, had the success of the Hood Canal Management Plan process in mind when it stated:

> The parties shall develop comprehensive regional resource management plans for Puget Sound stocks. The goal of these plans shall be to achieve coordination between affected parties and to eliminate potential conflicts in resource management strategy. These regional plans shall specifically address the provisions of this Plan as to which management units are primary and harvest management and enhancement strategies, with consideration of current and anticipated habitat status and management, research needs and priorities, and other matters as required by this plan.

In sum, through the Hood Canal Plan, the PNPTC practices long-term sub-basin or "watershed" planning with the state by co-ordinating hatchery production, harvest management, and habitat protection with long-term future goals in mind. The history of the Plan demonstrates that there was great resistance to this type of co-ordination, and that the tribes and PNPTC played a key role in bringing it about.

6.3 Enhancement: benefits to artisanal, sport, commercial fisheries

The tribal perspective on enhancement has been largely treated in the discussion of the "vertical" watershed perspective at the beginning of this section. Three PNPTC tribes have been operating hatcheries in their communities since 1976. Their first releases totalled 5.6 million chum in 1977. By 1981 the tribes released 4.1 million chum, 1.3 million coho, 250 thousand chinook and 36 thousand steelhead. By 1987, the releases were 4.5 million chum, 1.4 million coho, 941 thousand chinook, and 96 thousand steelhead. This represents about the capacity of the three tribal hatcheries.

The one area of possible further expansion in tribal production is in net pen rearing of smolts supplied by another source. In this "remote release" concept ("remote", because the smolts are removed from the area or hatchery where they were originally produced), the smolts are held in sea water long enough to become imprinted, so that they return to this area as adults. This concept was pioneered by the Squaxin Island tribe in co-operation with WDF in the early 1970s, later to be successfully applied in Alaska by the Southern Southeast Regional Aquaculture Association.

In 1979, WDF decided to base coho production, and harvest in Hood Canal, on natural stocks, thereby curtailing hatchery production which would be incompatible with natural coho (because of higher harvest rates required to take hatchery coho). The tribes, although supportive of the natural stock management approach, were concerned that the new harvest rates would result in too low a catch level to support their fisheries. Localized hatchery operations, returning fish to areas where they could be harvested separately from natural stocks, were seen as a potential solution. Port Gamble Bay (Area 9A) is such an area.

In 1981 the Port Gamble tribe began a co-operative enhancement program with WDF. WDF provides early rearing for the fish, makes them available to the tribe as smolts (yearlings), and provides the fish food. The tribe provides the net pens in Port Gamble Bay and the manpower necessary for the remaining two months of rearing. The fish are kept past their normal outmigration period. Once released, these "delayed" coho tend to residualize (stay mostly in Puget Sound areas), where they contribute continuously to the non-treaty recreational fishery until they mature. Upon maturation 18 months later, they return to Port Gamble Bay, where they are harvested by tribal fishermen.

The Port Gamble Bay net pen program provides a "back-yard" set net fishery which requires only a skiff and an $800 net to operate. Some 40 nets of prescribed length, and set at prescribed distances can operate 24 hours a day on the reservation and nearby beaches of the bay. Such a fishery is labour-intensive and can involve family members, so it is ideal for families without the capital to enter the big boat fishery. A few fishermen have gotten their

start in this fishery, and been able to accumulate enough capital over a six-ten year period to enter the big boat fishery.

This fishery gives an extraordinary return to the tribe for the investment it puts in. Since the WDF hatchery has a constant surplus of smolts which it is willing to supply, all of the returns can be harvested in a "fish out" fishery. There is no need to restrict fishing effort or worry about escapement to the tribal hatchery. The 400,000 fed smolts released usually return 5-15,000 adults to the Port Gamble set nets. This type of enhancement project is a convenience to WDF, because it both increases the total catch, and it contains part of the treaty catch in one area, keeping more of the grounds free for non-treaty fisheries.

In 1985 the net pen/delayed release co-operative program with WDF was expanded to include Quilcene Bay (part of Area 12A), a much larger in-common area which could be fished by all the tribes, using either large boats or skiffs. One advantage of having this kind of fish-out fishery in a confined area is that these hatchery fish can easily be separated from the wild coho, when there is a closure on the latter. The Quilcene Bay coho fishery was the only in-common coho fishery at all in 1988, when this situation occurred. By 1990, the Quilcene Bay fishery had been dedicated as an in-common small boat fishery.

The enhancement program in Port Gamble Bay illustrates one of the mechanisms by which a tribe's "back yard" artisanal fishery can contribute to and enhance a larger-scale commercial and recreational fishery which catches a portion of the tribe's enhanced run. This program also facilitates the separate management of these two fisheries.

Elsewhere we will explore how co-operative projects between tribes and sportsmen's groups such as Trout Unlimited contribute to enhancement of particular runs. What is significant to note here is that the status of the tribes as co-managers has added funding and force to the efforts of other groups to practice enhancement and habitat rehabilitation (see also 4(f) "Habitat Protection").

6.4 Harvest planning

Harvest planning was difficult for the tribes until WDF agreed to truly co-operative management in 1985, by jointly negotiating and adopting the Puget Sound Management Plan. The plan sets out the schedule of dates by which tribes and state will have agreed on specific management decisions. Key to harvest planning was reaching agreement on pre-season and in-season run size estimates, and necessary escapement levels (the number of adult allowed to "escape" the harvest to swim upstream and spawn in fresh water). Joint reports are now issued on the status of each species every year, and management recommendations for each area. These reports are the basis for harvest planning.

Once there is agreement on run size in specific places, the PNPTC issues its own regulations for fishing those areas. PNPTC has opted for a temporally lengthy and geographically dispersed style of fishing, in line with its tribes' policy of keeping the fishery open to as many individuals as possible, and creating opportunities for fisheries which do not require large capital investment. Some aspects of this policy are discussed later under "Allocation".

This PNPTC harvest management strategy has both a biological and a socio-economic purpose. During much of the season, fishing is open five-seven days a week in both Juan de Fuca Strait and Hood Canal. Biologically, it makes sense to spread out the fishing effort as broadly as possibly, spatially and temporally. Fewer boats fish any particular stock, and the effort of those boats does not disproportionately hit the peak of the run. This would happen if the fishery were only open during the peak, and a large fleet harvested most of that part of the run. Instead, the harvest is spread proportionately and "eutemporally" over the entire run, leaving a genetically more diverse run to perpetuate itself.

Socio-economically, a five-day opening pits fishermen more against weather than against fellow fishermen, provided delivery sites are easily accessible. "Over-investment" in more competitive boats and gear tends to occur when fishermen are in a race to get to the fish first, or when they need to have a large holding capacity for a very short fishing opportunity (as in British Columbia roe herring fisheries). If the supply of fish is more evenly spaced and timed, fishermen are motivated to invest in gear which is safe and efficient for weather conditions, and also most economical. Investments in fishing boats indeed followed this pattern.

We were always quoted one consistent price for a Strait gillnetter (which encounters some rough weather), and another consistent price for a Hood Canal gillnetter (lower, because the conditions are not as bad). Nobody talked about getting a "bigger boat" once he had a marine gillnetter (usually about 32 feet), although some people would work up to this size from 15, 18, and 20 foot skiffs, or from the older 26-30 foot marine gillnetter. The 26-32 foot gillnetter used was also a "bowpicker" whose net reeled from the front of the boat. This lighter and more mobile craft carried less cargo; its engine outdrive could also be easily tilted up if entangled or malfunctioning. (Canadian and non-Indian Washington sternpicker engine propellers must be attended to in drydock or underwater, and are thus more expensive to maintain).

When new equipment was purchased, it involved replacing an old net with a new one, or converting to a hydraulic net drum or reel (usually owner-built), to avoid the back-breaking labour of hand-pulling the net. Some skiffs and smaller boats used Briggs and Stratton "roto-tiller" net reels, while larger boat-owners gradually built reels large enough to accommodate the allowable net length. Boat maintenance and avoiding breakdowns were important topics of conversation, rather than the boat and equipment upgrading one hears about constantly in the B.C. fleet. Everyone had the essential radar for operating in the fog, but virtually no boats carried the costlier sonar. The Klallam fleet carried loran to avoid fishing over the international boundary in Juan de Fuca Strait.

In addition to timing of fishing "openings," fishing territory size also helps explain why fishermen had no incentive to overcapitalize. Usual and Accustomed fishing areas did not extend far from home, and there was at most an hours' difference in the time a fast boat and a slow boat could cover the territory. "If you want to get there sooner in a slow boat, you get up an hour earlier," commented one fisherman.

A third important management technique limiting overinvestment is the tribal ordinances' prohibitions against the use of seine gear. Although the stated reasons for this are to spread the fishing opportunity further, this restriction also makes eutemporal fishing possible. One

could expect that the ability of the PNPTC to spread out the fishing effort would be much hampered if it had to deal with these far larger vessels, which have a greater immediate and concentrated impact on the resource. The management techniques described above also create more opportunity for the use of gear and boats which are minimally capitalized. A number of fishermen chose to operate marine set nets or drift nets from 15-18 foot skiffs, and claimed these were more economical than larger boats, and reasonably profitable. This was particularly true of those who had grown up in fishing or who had help from relatives in learning to fish. The largest tribe has about 50 "regular" small boat fishermen, the second and third largest has 15 each. Of course, with a small boat, a fisherman has a better chance of clearing a profit when the runs are low. Some fishermen also fell back into this strategy after they lost big boats in low run years (see "Allocation").

Finally, because allocation between marine and river fishermen is practiced in some fisheries, many tribal fishermen obtain a share of the resource without ever using a boat. As a manager, the tribe supports these more artisanal fisheries for reasons other than simple economic return. Obtaining traditional food and distributing the catch more widely (especially to youth and elders) are important values for the tribe.[6]

In sum, contra the classic bio-economic paradigm (Gordon 1954, Scott 1955) which predicts overinvestment and dissipation of profits by fishermen, (and consequently argues for private individual ownership of access rights to prevent this), PNPTC harvest regulations and territorial size offer several alternative methods of restraining (or not creating incentives for) overinvestment. Eutemporal openings, restricted fishing territories, prohibition of seine gear (and gillnet net length), and allocation to less capitalized gear all contribute to a situation in which fishing effort is effectively limited without inciting overinvestment. PNPTC policy and regulations can continue to do this, provided the tribal marine fleets do not grow too large in proportion to the run sizes. In terms of both biological and socio-economic management, these harvest management strategies of PNPTC are a distinct and promising contribution to good fisheries management.[7]

Another major contribution of the tribal perspective to harvest regulation is weak stock management, discussed also as "the watershed perspective." Since a tribe is dependent on particular runs which return to its area, it seeks to protect these runs from overfishing when they are depressed or weakened. This can happen because of drought, natural or industrial disasters, or simply historical overfishing. Of course, to be worth protecting, a stock must be seen as having the potential to be abundant and valuable.

It was possible for tribes to negotiate weak stock protection from other agencies after the 1981 Hoh v. Baldrige case demonstrated that the fish were to be managed on a river- by-river, run-by-run basis. Coho stocks of the Queets River on the outer coast, the Skagit River, and Hood Canal have been successively the "limiting stock" from 1982 to 1988. This means other stocks which return at the same time cannot be harvested above the level that the weak stocks can sustain. These are of course not the only weak coho stocks, so when they are protected, other weak stocks get some protection in the process.

Weak stock protection usually requires an extensive period of negotiation with other parties. This is because other parties who are not dependent on the weak stocks are asked to forgo harvesting opportunities on stronger stocks which are passing their area at the same time as

the weak stock. In the case of Hood Canal coho in 1988, the Klallam tribes first had to agree to limit their fisheries in Juan de Fuca Strait when the coho were passing through. Then PNPTC negotiated with other tribes which have U&As in the Strait, and in the ocean troll fisheries. Usually the other tribes want to be supportive, because they too have had or will have a turn at protecting a weak stock. Then the tribes together negotiated with WDF to restrain non-treaty fishing at key times. Finally, a united front goes to the Pacific Salmon Commission, and sometimes the Pacific Fisheries Management Council to negotiate protection from Canadian and other US fisheries as the weak stock passes through their waters.

Naturally everyone asks for concessions, and the group seeking protection often has to totally close its own fishery to manoeuver other parties into at least partial protection. For example, WDF did not close the sport fishery in Hood Canal during August and September 1988, during the height of the coho run, when the tribes would have wished. This was also the height of the tourist season. But WDF did agree to impose non-retention regulations on coho through November.

Tribes are now looking at models to help them make rational decisions about when the sacrifice of having a complete closure to protect a weak stock is ultimately worthwhile. The latest model being considered proposes three levels of harvest--high, medium, or low--according to how many weak stocks are present in a given area. In other words, the tribes may not wish to shut down totally both themselves and the rest of the industry unless the weak stock situation meets certain criteria. One can expect the tribal perspective to continue to make a contribution to difficult decisions about balancing weak stock protection and the health of the rest of the fishery.

6.5 Enforcement

The concept of professionally-trained tribal enforcement officers who wear uniforms was at first quite foreign to the tribes, especially as these rather resembled the WDF "fish cops" who had pursued them in pre-Boldt days when they fished near the reservation despite state closures. The Skokomish especially had their own sense of appropriate tribal enforcement. In the mid 1900s, two tribal members would float down the river which flowed by and through their reservation to make sure that the usual five-day opening could be supported by the stocks. The number of people on the reservation was much smaller then: there was plenty of space to fish and plenty of fish could be caught in five days. The weekend sport fishery seldom exceeded two dozen locals, who caused no problems. Since Hood Canal was closed to commercial fisheries, the season was longer and many of the original stocks still abounded, especially chinook and coho.

The ratio of people to resources, and the resources themselves, began to change after 1974. More people stayed on or moved back to the reservation, as housing and fishing opportunities became available. Tribal members living near the reservation began to fish there. Eventually there was not enough space in the river for all who wished to place nets. New commercial fisheries, both tribal and non-treaty, opened in Hood Canal, once a sportsmen's preserve. Two state hatcheries began to pump out vast quantities of chum, and to outplant coho and chinook into most Hood Canal rivers. Original stocks became scarcer as a result. The tribe at one point attempted to encourage large-scale tribal entry into the marine commercial

fisheries by closing the river. This policy was the product of anxiety that if the tribe did not demonstrate its ability to take 50 per cent of the runs right away, that this right might be lost. This policy was later reversed, but was one in a series of disruptions to the situation prevailing between the 1940s and 1960s when "we handled our own fishery: it was our river and our reservation."

The arrival of a professional PNPTC enforcement officer hired from outside the tribe was a rude awakening to the seriousness of tribal ordinances and PNPTC regulations. In some sense, enforcement officers bore the brunt of tribal member's education about tribal management in a rapidly-changing environment. It took three to five years for most of the community to accept the idea that certain standardized procedures such as applying for a tribal licence, carrying the licence, identifying one's nets, spacing one's net's according to ordinance, observing a closure, etc. must be followed or nets would be seized. "I wasn't an outlaw until they brought in rules," was the way one tribal fisherman perceived the situation. Eventually tribal courts had to increase penalties drastically and incrementally so that net seizures, fines, imprisonment, and finally loss of licence would be effective deterrents.

The most important step in establishing the credibility of tribal enforcement, however, was gaining the active support and co-operation of the tribal community. Even after the first five years, approximately one-third of the fishermen fished in violation of tribal and PNPTC regulation. "Outlawing" by then took more clandestine forms, however: netting the river or beach-seining the canal at night. As other tribal members began to accept the enforcement officer as performing an important job, they informed him about illegal fishing. PNPTC central office let the tribe know that they counted an estimate of illegally-caught fish as part of the tribal catch. Tribal members realized that the outlaw catch was reducing their legal catch. As informing increased, more people were caught repeatedly, came closer to losing their licenses, and stopped "outlawing". After the ringleader stopped, the number of regular outlaws was reduced to about 20, only 16 per cent of the fishermen. In 1988 for the first time, a tribal member was willing to inform against another tribal member in court. This meant that by this time, outlawing was not merely tacitly disapproved as counter to the tribal interest; it was publicly condemned. Although enforcement officers do not feel they have enough personnel to cover the area, clearly they have gained all-important credibility and support. It is doubtful that this kind of reversal of attitude toward professional enforcement could have occurred without tribal and PNPTC control of enforcement. The perceived legitimacy of tribal and PNPTC regulation of the fishery, as well as their enforcement efforts, have permitted the development of far more effective enforcement than could be envisaged under conventional state enforcement.

Senior state enforcement personnel were unwilling to estimate the level of non-compliance in the non-Indian fleet, saying they had "no way of really knowing." B.C. fishermen estimate illegal fishing in B.C. to include as much as 20-30 per cent of the fleet. When highly contentious regulations are imposed without consultation, and create severe economic hardship, east coast Canadian fishermen have been known to violate fisheries regulation at rates over 90 per cent (Kearney 1983). The tremendous advantage of PNPTC enforcement is that the offenders are eventually known and likely to be apprehended. The slow pace of bringing down rates of non-compliance is related to the slow pace of building up tribal expertise, finding the appropriate personnel to fill the fisheries manager and fish committee positions, and establishing the credibility of tribal and PNPTC management. Once these are

established, public opinion and social sanctions become important aids to official enforcement. With these social sanctions, in addition to the gradual stiffening of legal sanctions against repeating violators, the number of violators can be expected to continue its gradual decrease.

The other smaller tribes have had less difficulty in establishing credible and effective enforcement, possibly due to a less established traditional fishery, a smaller in-group, and the fact that enforcement officers are tribal members from smaller families who are not afraid to cite everyone equally.

Enforcement officers also prefer the structure of PNPTC management to individual tribal enforcement:

> PNPTC in my opinion is one of the best organizations to work for. When you work for a tribe, you are always running the risk of getting fired. I worked for X tribe: my partner and I were always being laid off for being "hard-asses"; we were always getting in trouble because we decided it didn't matter about someones's rank and stature when it came to the enforcement. Here you don't actually work for the tribe in that sense, so it's actually really nice. I can go out and cite a Council member, which I have done on countless occasions, and though I get a lot of flack for it, it's nice to have PNPTC come in and say "He's doing his job and learn to live with it." And it works the other way. If PNPTC wants to fire me, the tribes may say I'm doing a good job.

In the decade following the Boldt decision, the tribes' difficulties in establishing effective enforcement were increased by the "outlaw" fisheries of the non-treaty fleet, conducted in protest to the court's decision. In addition, in the early years when the tribes were catching far less than 50 per cent, a non-treaty fishery would be often conducted in front of a tribal fishery so that little fish would be left for the tribes. These situations did not facilitate the development of respect for regulation in general, or of good working relationships with WDF enforcement officers.

The advent of co-management has gradually changed this state of affairs. Enforcement officers from all tribes reported improvements in co-operative relations with WDF enforcement personnel since 1985-1986. PNPTC officers can detain a non- treaty violator and summon WDF personnel to cite him. WDF officers respond enthusiastically to this added assistance and the PNPTC officer's testimony is used in court. The reverse situation also applies, and PNPTC has an excellent reputation with WDF enforcement for following through on prosecution of tribal offenders detained by WDF. The recent stiffening of penalties imposed on repeat offenders by tribal courts has given WDF officials more confidence in tribal justice.

These improved relations have at times deteriorated during the recent struggle over shellfish rights, and the increasing recreational fishing pressure on tribal exclusive rivers. From the tribal perspective, state enforcement officers appear to be in short supply when recreational fishermen are taking more than their limit and seem to be deliberately fouling tribal nets while shouting abuses at tribal fishermen. Yet it appears to the tribes that there is a surplus of state enforcement officers where tribes dig shellfish on beaches whose jurisdiction is claimed by

state agencies. These perceptions are consistent with the state's perception that its first obligation is to its major clients, the recreational fishermen. WDF has recently set itself the goal of making Washington "the sport fishing capital of the world." Tribal/state co-operation has progressed in enforcement of commercial fishing regulations, but co-operation is far more limited in the area of recreational fisheries.

The nine sockeye-fishing tribes have cross-deputized their enforcement officers for the sockeye season, meaning one tribe's officers may cite or arrest another tribe's fishermen for violation. The officers meet annually before the sockeye season to become familiar with each other's regulations. These meetings are also attended by WDF and federal officers, who work closely with the tribes in enforcing sockeye regulations near the international border in Juan de Fuca Strait and the San Juan Islands areas.

Tribal enforcement officers in some areas also take on the task of educating the non-Indian community about tribal fisheries and how they can help improve management. Wherever the tribe opens fisheries on off-reservation rivers, and fishermen must cross private property to fish, the enforcement officer of one tribe goes in advance to introduce himself to the property owner, explain the tribal regulations and the fact that fishermen may soon be appearing. For many non-Indians in this particularly anti-treaty county, this is the first information they have heard that tribes practice enforcement. The enforcement officer can then use property owners as part of a network of information on the activities of tribal fishermen, keeping them informed about regulations so they will know when fishing is closed and illegal. This also allows them to plan their own sportfishing activities at times that will not conflict with tribal fisheries. On some rivers, the tribal fish committee and enforcement officers meet before the season with the property owners' association to explain tribal regulations, discuss concerns of the property owners, and to assure them of the tribe's support in preventing or punishing any damage to property caused by tribal fishermen.

When enforcement is part of a small-scale local management effort, it can also serve as another source of information on the state of the stocks and the appropriateness of regulation. Enforcement officers are the eyes and ears on the grounds who can most immediately inform both tribal and PNPTC offices about what is going on. In addition to the fishermen, they are a source of ideas on ways to make regulations more workable.

Enforcement is one of the PNPTC jobs at which tribal members excel, and are more often employed than non-tribal members. The basic training for a tribal enforcement position is 13 weeks, plus a high school diploma. Once hired, an officer must upgrade his training at regular intervals. All PNPTC staff positions are preferentially filled by tribal members, but so far few tribal members have obtained the biological training necessary for many of the central office positions. Tribal members do hold positions as fisheries manager, hatchery manager, hatchery technicians, fisheries secretary, enrollment/court clerk, and associate judge.

Tribal courts prosecute fisheries offenders, using the services of an outside Indian circuit court judge who was selected by the tribes for his fairness. Local tribal judges were invariably accused of bias toward relatives, but the non-local judge system works well. Tribes encourage members not to use lawyers to plead their cases, since "most offenders just want to plead guilty, take their punishment, and get out of there." For this reason, the pursuit of tribal justice is probably more effective than non-tribal justice.

In sum, the PNPTC system of fisheries enforcement is highly effective because it is supported by tribal and inter-tribal social controls. Tribal members report other members to their fisheries officer, as well as members of other tribes; non-Indian neighbours also may become part of the information system of an enforcement officer. Officers are protected from politically- motivated firings by the joint control vested in the PNPTC and tribes. Tribal and PNPTC enforcement furthermore contributes to overall fisheries enforcement not only by effectively disciplining its own fishermen, but also by co-operating with state officers in detaining non-tribal offenders.

6.6 Habitat protection

Only recently have the tribes had the power to significantly affect damage of salmon spawning and rearing habitat caused by industrial operations and real estate development. In 1980, Phase II of the Boldt decision ruled that the tribal access to 50 per cent of the runs was meaningless unless they also had the right to protect the habitat in which the runs perpetuate themselves. The major industries using water resources (timber, hydroelectric, agriculture) heeded the advice of attorney Jim Waldo (Waldo 1981): he persuaded industry they would be better off negotiating agreements with the tribes than fighting them in court. Industrialists formed the Northwest Water Resources Center and worked with some of the tribes on co-operative habitat rehabilitation and salmon enhancement projects. Industrialists also agreed to help "call off the dogs" who had continued to fight the treaties by harassing the tribes and state institutions supporting the implementation of US v. Washington.

Some recreational fishermen also began working co-operatively with the tribes in the early 1980s, and the new governor elected in 1981 decided to negotiate with the tribes. Because of the intense and pervasive opposition to US v. Washington, Phase I, six of the top eight officials in the Department of Fisheries eventually had to be replaced to bring about a more co-operative approach (Schmitten 1987). Finally in 1984 WDF and the tribes got to the point of discussing a comprehensive joint management plan.

After the successful negotiation of the 1985 Puget Sound Salmon Management Plan, which covered joint decision-making in the areas of data collection and analysis, harvest management, enhancement, and regional planning, the state agencies were ready to deal with habitat protection. Industry was also ready to negotiate, not only because of the 1980 Phase II decision (which by this time was in legal limbo--see Cohen 1986), but also because the growing alliance between environmentalists and the tribes was threatening to bring in much more stringent regulation of industry activity in the riparian zone along fish creeks.

Jim Waldo was key to the negotiation of the 1987 Timber/Fish/ and Wildlife Agreement, being one of the few players who "walked both sides of the street" and could thus bring former enemies to the table. Although many tribal and environmental leaders distrusted Waldo for this very reason, they were tired of having little impact on industry practice despite winning in court. The key aspect of the agreement for them was that it mandated participatory implementation. The tribes received funding to participate in the actual application of the agreement to their watersheds, alongside the other agencies participating in the agreement: Washington Department of Fisheries, Washington Department of Wildlife, Washington Department of Ecology, Department of Natural Resources (regulating timber

harvest), Washington Forest Protection Association (representing the timber industry), and the two environmental umbrella group participants: Washington Environmental Council and Audubon Society. These groups and agencies all worked together to review individual applications to log in areas where they felt affected. On sensitive sites, or sites with unusual values, the usual 15 day period for comments on these applications was extended to 30 so that on-site review could take place. During on-site review, tribes, environmental representatives, WDF and WDW representatives could negotiate with DNR and the timber company about how the logging should be modified or disallowed, to protect fish-bearing streams, some limited wildlife habitat, and cultural sites. DNR made the final decision, but that decision could be appealed. The TFW Agreement included a mandatory 25 foot riparian zone leavestrip along permanent fish-bearing streams, and a voluntary small two-acre per 160 acre leavestrip in upland zones for wildlife. This riparian leavestrip in the Agreement was only half of that required by new regulations being considered by the Forest Practices Board in 1986 (50 feet), and far less than required in Alaska and California (100 feet), but the Agreement included other provisions appealing to tribes and environmentalists. Even more important, the Agreement represented an understanding that the parties would continue to negotiate and respect each other's desire for better research and better management.

Tribes and environmentalists participate with the other co-operators in the research and monitoring program which participants agreed would eventually set the standards for how much protection of fish and wildlife was warranted. The timber industry lobbied the US Congress with the tribes to obtain funding for tribal positions in research and implementation.

Proponents of the "conspiracy theory" or the "club theory" of environmental mediation (Fraidenburg 1989, Halburt 1989) suspect that the T/F/W Agreement has involved more co-optation of environmental and tribal interests than compromise with them on the part of industry. They point to the fact that the spectrum of players allowed at the table is still much narrower than the general public interest. Supporters of the Agreement counter that, even though the Agreement may be too limited in scope, too slow to generate agreed-upon data, and involves much compromise, it represents an enormous step forward.

> We could never get anywhere near the industry decisions before; the process was completely closed. The process is far from perfect now, but there is an openness I never would have believed could happen a few years ago. I think industry let us in because they thought we would go away after the Agreement and they would do business as usual. They have always had the power to control the implementation process, the actual application of regulations. But as long as we are participating on that level, the Agreement can work for us.

It will be several years before the research component of the Agreement can generate the data and analysis which participants have agreed they will accept and use to guide regulation. In the meantime, however, the state legislature has appropriated funding for WDF, WDW, WDE, and DNR to participate in implementation. The tribes reason that this attempt at compromise is worthwhile, because, if the Agreement fails, they can go back to court with better data to more effectively stop industrial practices damaging to fish habitat. Recent disregard by DNR of tribal/environmental/WDF/WDW input and DNR's failure to act on violation of agreements by logging companies are resulting in tribal appeals to the Forest Practices Board and possible court action.

In sum, the tribes benefit from the Agreement by having a voice in the shaping and implementation of environmental guidelines for logging practices; the state agencies benefit by getting the additional technical and political support they need to be more effective in environmental affairs; the industry benefits by avoiding litigation, having studies funded by federal and state monies, and avoiding more stringent and rigid regulation. Finally, the federal government benefits by avoiding the litigation it would otherwise be involved in over the tribes' right to have fish habitat protected.

The PNPTC received federal funding by mid 1988 to hire three habitat biologists. One is shared by the Lower Elwha and Jamestown tribes, while the other two work at Port Gamble and Skokomish tribal fisheries offices respectively. Before that, PNPTC's one habitat specialist was stretched very thin in dealing with a wide range of issues from dam mitigation/removal to timber harvesting and chemical pollution. The new positions have opened up a highly significant area in which the tribes have an opportunity to be proactive instead of merely reactive. PNPTC initiatives in habitat inventory and stream rehabilitation have involved forming alliances with local and regional associations with the same goals, such as the Hood Canal Co-ordinating Council and the Jefferson County Watershed Council.

Indirectly related to tribal legal rights to protect habitat, a movement to protect water quality in Puget Sound culminated in 1986 in the setting up of an independent Puget Sound Water Quality Authority by the state legislature. The Authority is allocated its own staff and budget, in response to its own annual plans, but most of its projects are carried out by funding funnelled through existing agencies such as the Department of Ecology.

In 1988 the Water Quality Authority convened "early action" local water quality watershed planning projects in several key areas of the state. These planning projects bring together the spectrum of local interests at the community level and asks them to set standards for themselves for water quality and generate a plan to reach those standards. One of the most successful of these "early action" plans was developed at Sequim Bay in the Point No Point Treaty area, and is discussed in more detail elsewhere (Pinkerton 1990). The Jamestown Klallam Tribe and the PNPTC water quality biologist participated in this process. The PNPTC received funding to hire a water quality specialist through the Centennial Fund, created by the cigarette tax. Through this and five other positions in the state, Western Washington tribes have been able to participate in water quality planning. Even though these positions seem to some a "drop in the bucket compared to the pollution problems," and even though the legislature recently voted to modify the point source pollution programme of the Water Quality Authority, the work of this body through its local planning projects has provided an important model for how local communities, including the tribes, can contribute to habitat protection. The local community water quality plan, after passing State Environmental Policy Act Review, obtaining letters of concurrence from participating agencies, and funding from the Department of Ecology, has set up a process binding on the relevant participating agencies, which are then required to carry it out in the local area.

In sum, tribal fishing rights have been key to the successful negotiation of the Timber, Fish, and Wildlife Agreement, which provides the first concrete hope that planning for fish stream protection can occur. The tribal/environmental alliance has been strong enough to bring the timber industry into negotiations over habitat protection. The PNPTC as a tribal co-operative

has qualified for one of the key water quality positions in the state, which has enabled it to participate in and support critical pilot projects in community water quality planning.

6.7 Allocation

Allocation is probably the most difficult management problem facing a management co-operative. How can the co-operative fairly balance the interests of marine boats with large capital investment and the interests of river and small boat fishermen who may have no other source of income? How much should the intercepting Klallam tribes be allowed to catch of stocks which originate in Hood Canal, and will be caught by the terminal Skokomish if not intercepted? How much should the Klallam curtail their efforts on passing chum and coho stocks in the Strait of Juan de Fuca, when some of these stocks are headed for Puget Sound and not Hood Canal? Should a tribe whose fishermen are successful at catching enough to keep their boats curtail the opportunities of this tribe because another tribe is losing boats and therefore catching less? Is the second tribe losing boats partially because the first tribe is taking a larger share? What principles of equity should be applied?

The problems of intra-tribal and inter-tribal allocation are new and enormous. For at least the first 10 years after the US v. Washington decision, the tribes' energy was focussed most heavily on how to capture their treaty share before it was taken away (as some of the earlier court challenges suggested it might be). Tribes were rapidly building up fleet capacity to prove they were capable of catching 50 per cent after catching about three per cent before 1974. The Klallam tribes were trying to get back into fishing after nearly a generation away from it, with a few notable exceptions. The Skokomish were learning to fish the north end of Hood Canal again after nearly two generations of containment in the lower end because of the commercial closure.

The first 10 years of tribal management were characterized by enthusiastic boat purchasing during good years, and a number of boat losses during poor years. Boat ownership required new skills in financial management and boat maintenance, as well as severe self-discipline and constant hard physical work. Some fishermen decided big boat fishing was not for them.

PNPTC tribes made several important policy decisions in attempting to support the fishermen who were venturing into large boats, without encouraging over-rapid growth of one sector at the expense of another. First, tribes incorporated policies into all the tribal ordinances, forbidding use of seine gear. This was done because the capital investment in seine gear is so much greater than investment in a gillnetter or skiff that an enormous amount of fish would be required to support the seine operation. The PNPTC tribes preferred to have more fishermen sharing the fish and making a reasonable living than fewer fishermen making either the same living with greater risks, or making a much better living. PNPTC fishermen claimed they were also influenced by their friends and relatives in the largest seining tribe who had either lost seine boats during poor years or disliked the competition between seine boats and smaller gear within that tribe.

PNPTC tribes also developed a second mechanism to limit large investments, and to stabilize the growth of their fleets. They required that a boat purchase loan agreement be examined and approved by the fisherman's tribe. This policy served two purposes: it moderated the

investment of an new, unproved fisherman, encouraging him/her to make investments in line with his/her experience. Perhaps it would be wiser to fish a smaller boat in the upcoming low-run year before jumping into a large one? This was partially a reaction to the number of fishermen who had jumped too quickly into large boats and could not keep them. The second purpose of the policy was to prevent a joint venture with a non-treaty partner seeking access to treaty fish on terms disadvantageous to a tribal fisherman. PNPTC wanted its fishermen to have loans on the best terms available on the market, but not at the price of selling out the tribal interest in the fish.

A third issue is being discussed, as more fishermen become successful and can afford to buy a second boat. Should the PNPTC allow its fishermen to rent boats to other tribal members? In other words, should a fisherman be allowed to own more than one boat of the same type, when he can fish only one? There is already at least one lease arrangement in each tribe. Support is strongest for lease agreements in the smaller tribes which are trying to increase their share of the catch before it may be capped by case area inter-tribal allocation agreements. These tribes point to larger tribes outside the PNPTC area who have greatly increased their fleets in the last five years. They feel multiple boat ownership is the swiftest way of helping other tribal members enter the fishery. Some of their opponents favour limits on multiple boat ownership outside immediate family, while others favour a strict one man/one boat policy. This issue will undoubtedly receive long policy discussion after inter-tribal allocation in the case area is settled.

Aside from these policies and issues which indirectly affect allocation, and the Hood Canal Agreement on primary rights, PNPTC has had no specific allocation policy among its member tribes until May 1990. It has allocated in-common fishing opportunities chiefly by spreading them out as much as possible, and keeping each area open as long as possible. As long as the Klallam fish the Strait and the San Juans, they leave Hood Canal to the Skokomish, and their own fishery intercepts both North Sound and South Sound runs, as much as Hood Canal ones. Skokomish fishermen do not see Klallam interception as a big issue on chinook, coho, and early chum, since this interception is diluted. Klallam interception of late chum becomes an issue when Klallams leave the Strait in late fall to fish northern Hood Canal. The issue is larger when chum runs are poor, since they are far more important to the Skokomish than their smaller chinook and coho runs. The issue is also larger when the Klallam have already had a good season on Fraser River sockeye, a fish which does not come into the Skokomish U&As.

The Klallam fish chum in the Strait for as long as possible, because Strait chum fetch a better price, being in better condition. But at the end of the season, weather worsens in the Strait, and most of the chum have moved into Hood Canal, and are still in good condition in the north end (Area 12). Most of the Klallam boats move to Area 12 for two to three weeks to finish their season. Two dynamics then come into play.

(a) The large boat Skokomish fleet, which has not had an opportunity to catch the lucrative sockeye runs, nor to intercept chum in the Strait, are also fishing in Area 12. The undercurrent of competition between these two fleets is usually expressed in terms of Skokomish displeasure at the growth of the Klallam large boat fleet through multiple boat ownership. (The net expansion of the Klallam big boat fleet 1985-1989 was 15, while the Skokomish expansion for the same period was eight boats in 1988.

The mediating Port Gamble PNPTC board representatives suggest a one man/one boat policy, but the two Strait tribes with the smallest fleets object strongly to this perceived early curtailment of their rights. Progress on this issue is at least temporarily stalled, but one predicts that a compromise will be reached after fleets stabilize in response to Puget Sound wide inter-tribal allocation agreements.

Meanwhile, a variety of informal mechanisms and temporary measures have been used to ease tensions over allocation. These have occurred especially when the intercepting Klallam recognized that their own lucrative sockeye fishing season had been favourable, at the same time that the Skokomish had been cut back on coho and chum fishing. This occurred in 1988, when the Skokomish had suffered a complete coho closure, poor returns to the net pens in Quilcene Bay, and unusual interceptions of Hood Canal chum by a special opening in Area 9. The Klallams proposed that only the Skokomish participate in the test fishery on coho in northern Hood Canal. Had the test fishery been open to all four tribes, benefits to any one tribe would have been minor. By restricting the test fishery to one tribe, however, benefits were significant.

The Skokomish also asked the Klallam to voluntarily curtail their chum fishery a few days early in Hood Canal in the same year. Regulations were not affected; fishermen were asked to fish fewer days than they were permitted by regulation. Much of the Klallam fleet had already voluntarily stayed out of Hood Canal up to two weeks longer than usual, partially because the fishing was still relatively good in the Straits. When a request came to abandon their Hood Canal fishery three days early, some Klallams felt they "had already made enough sacrifices voluntarily," while others complied with the Skokomish request. The weather was bad and only a few boats showed up to fish Area 12. It appears that there was considerable moral pressure from some Klallams on their fellows not to fish, which created an uncomfortable situation for the few who did.

While the latter informal mechanism was judged by some fishermen to be of minor significance, it illustrates a point. The PNPTC has been apparently successful in fostering a concept of equity among member tribes which goes beyond strictly abiding by the agreements. While the smaller tribes feel considerable pressure to be successful and build up their fleets, they are not insensitive to the situation of member tribes. The mediation and leadership of the Klallam tribe most closely linked to the Skokomish by kinship and history has played a pivotal role in nurturing this sensitivity, and by early 1990 the Klallam and Skokomish were exchanging preliminary allocation proposals and principles to guide discussion. By May 1990 they had reached an agreement to allocate the major "normal-timed" Hood Canal chum tribal harvest 75 per cent to the Skokomish and 25 per cent to the Klallams.

Their ability to deal with internal allocation issues has enabled the PNPTC tribes to be more effective in taking a united position on Puget Sound-wide issues related to allocation and wise management. This was demonstrated in the united PNPTC opposition to the Area 9 chum fishery of 1988. Several North Sound tribes desired a chum fishery in Area 9, a mixed-stock area usually closed because Hood Canal, South Sound, and Stilliguamish stocks could not be distinguished. Although the Klallams and large boat Skokomish stood to benefit from such an opening, they were

united in opposing it, because of its unpredictable impact on Hood Canal stocks. Although this court action in 1988 was unsuccessful, united PNPTC action against the largest intercepting tribe in Area 9 was successful in 1990 in obtaining a ruling that Area 9 is outside this tribe's U&As. This issue illustrates another way in which the existence of an inter-tribal co-operative makes a difference in attitudes and effective united action.

(b) In addition to the allocation issue between Klallam and Skokomish fisheries, the Hood Canal chum fishery is also the focus of an allocation dispute between the Skokomish big boat fleet, fishing mainly in Area 12, and the Skokomish small boat fleet and river set netters, fishing mostly in 12C and the Skokomish River. These two sectors have achieved a peaceable 50/50 marine/river allocation on chinook, and there appears to be little tension around these much smaller runs (see below). There is considerable tension, however, around the far more plentiful chum which are the mainstay of the Skokomish.

In this situation, every fish caught in Area 12 is perceived as a fish which would otherwise reach the nets of the small boat or river fishermen in southern Hood Canal. This perception is not entirely true, since a non-treaty fleet seeks to take its 50 per cent of the Hood Canal chums in Area 12, where they are of higher value. Every day that the tribe closes its fishery in Area 12 is an allocation of higher value fish to the non-treaty fleet there. But the "small" fishermen, who do not feel suitably equipped to fish Area 12, feel little or no benefit from the large boat catch in Area 12 (although all tribal members do indirectly benefit from the higher value through the five per cent fish tax). They lobby their fisheries manager and tribe for a greater allocation of fish. They propose having Area 12C, or a portion of it, reserved exclusively for the smaller boats. One of their frustrations is that it is impossible to know the proportion of the Skokomish catch taken by the big boats, since these move into Area 12C at the end of the season to fish in front of the hatchery. They cannot make their case convincingly without the data.

The relative position of the small fishermen is indeed difficult to analyze, since their per cent of the catch varies with the strength of the run. When the run is unexpectedly large (1982, 1984, 1987), more fish are harvested in Area 12C, because PNPTC cannot predict the true run size until it is in the terminal area. The picture is not that simple, however, because the 50 Skokomish marine small boats also fish the river later on, sharing it with an additional 25 regular river fishermen. The small boat and river fishermen together do take a considerable portion of the chum catch, probably about 35 to 45 per cent, although they are far more numerous than the big boat fishermen, and comprise 78-84 per cent of all fishermen. We are not in a position to evaluate the degree of disadvantage they may suffer, without access to data on capital costs and fish value.

More to the point is that the tension and lobbying around this allocation question indicates there is an expectation of an equity principle being reached here also. This is another way the tribal perspective differs from the state's. Because fishing rights belong to the community and not the individual, the community is perceived as having a responsibility to establish equitable access, rather than allowing market principles

to operate in a vacuum. We can expect that principles of equity for these two fisheries will also develop in time, possibly on a sliding scale relative to run size, as in the Pacific Salmon Treaty. Equity may also be linked to limited entry, so that regular fishermen can expect to make a reasonable living, and also so young people and elders can take smaller amounts. (One fisherman proposes leaving the river to the youth and elders). The first informal policy within the Skokomish fish committee to allocate the Skokomish share of the chum run internally by area occurred in 1990. The idea is that 30 per cent of the harvestable chum reach the southern area (12C) before being caught. This does not prevent the larger boats from fishing in 12C but at least brings a stable percentage into the area fished by the small fishermen.

When equitable agreements are made, a tribal fishery becomes non-contentious, as has occurred in intra-tribal, inter-PNPTC, and some PNPTC/sport fisheries. We give a brief example of each.

In 1983, Skokomish fishermen's disagreement about how chinook should be allocated came to a head. The tribal government decided to make a 50/50 marine/river split, as this fish is highly prized both for home consumption and for the first fishing income of the year. The usual one-third caught by river fishermen up to then has since changed to about one half. This agreement has been easy to implement and has worked well.

A parallel allocation agreement on steelhead between Port Gamble Klallam and Skokomish tribes has been equally successful. The Port Gambles agreed not to fish commercially in Hood Canal rivers in exchange for taking one-third of the Indian share in their set nets in Port Gamble Bay (Area 9A) within a certain time frame. The bay fishery right on their reservation is far more convenient for the Klallams, while having fewer nets in the river is more agreeable to the Skokomish and the sport fishermen.

While the third arrangement is not strictly speaking an agreement, it illustrates the principle of how groups adjust to mutual convenience. The steelhead which is theoretically split 50/50 between sport and tribal catch in the rivers on a run-by- run basis can be adjusted seasonally. Tribes would rather take most of their steelhead in the winter when they need the income most, and the tourist industry is more active in the summer. Tribal net fishing techniques could also impact entering spring chinook if the tribes fished steelhead in summer, so a conservation concern also affects decisions about timing. Tribal and state regulations are therefore issued so that the two parties have seasonal access for their mutual convenience and the health of other fisheries.

In sum, allocation agreements or working arrangements among PNPTC tribes, within each tribe, and between tribes and state-regulated recreational fishermen show that principles of inter-tribal and intra-tribal equitable sharing can be handled effectively by the tribes and other fishing groups themselves. When these groups generate their own principles of equity and reach agreements, allocation becomes systematic and non-contentious. The successes of the PNPTC board and tribes so far suggests that small regional groupings may be the most appropriate forums for working out allocation agreements.

7. Summary Analysis of the Effectiveness of PNPTC Management

In Section 4 we have discussed four ways in which PNPTC's activities contribute effective and innovative tools for sound management in both biological and socio-economic dimensions. These include (a) the ways PNPTC effectively combines the management of artisanal and commercial fisheries without sacrificing the acknowledged benefits of either; (b) the ways the entire fishery is benefited by the inclusion of the tribal (community) and the PNPTC (agency) perspective; (c) the ways conventional control of fishing effort is effectively reinforced by socio-economic controls, and by the removal of incentives for competitive overinvestment; (d) the ways PNPTC as a management co-operative is more effective and economical than individual tribal management, while still being more responsive to individual tribes than a statewide agency. Here we summarize the previous discussion into these four categories.

7.1 Combining artisanal and modern commercial fisheries

PNPTC effectively combines artisanal and modern commercial fisheries without sacrificing the acknowledged benefits of either. Many tribal fishermen in river, small boat, and even low-cost large boat fisheries fish in a more "artisanal" than "commercial" fashion. An artisanal fisherman may be loosely defined as one who is not necessarily or always maximizing monetary return. Other values such as obtaining traditional food, enjoying a relaxed and self-directed life style, socializing at work, or being a valued community member by giving away fish may be as important as, or more important than, making money. From a management perspective, artisanal fishermen can be seen as valuable, because they put less pressure on the resource. Another way of putting this is to say that in artisanal fisheries, more people can be supported on fewer fish, and there are high social welfare benefits generated by these fish.

Many managers of modern commercial fisheries see artisanal fisheries as a management problem, however, because they feel less able to predict their behaviour. Thus the British Columbia limited entry program targeted for elimination from the fleet those vessels which earned less than $2,500 per year in 1968. The limited entry program contributed to the capitalization of the fleet and the more competitive pursuit of fish. It could be just as well argued that the more highly capitalized fleet is more difficult to manage than the more marginal boats, because it has greater incentives to disobey regulations and to overfish. This is because a highly capitalized fleet requires high availability of fish to maintain itself. When run sizes are questionable, managers have to act conservatively and institute complete closures, rather than risk overfishing from a large- capacity fleet. In turn, the fleet generates political pressure for otherwise risky openings.

Tribal managers and the PNPTC have found means to manage their commercial and artisanal fisheries together, both by creating separate fisheries for artisanal fisheries such as river and delayed release bay fisheries, and also by allocating fish to each. Because both types of fishermen live in the same communities and participate in PNPTC, they have been able to work out agreements for mutual benefit, recognizing the legitimacy of and benefits derived from each fishery. Because it has been difficult, if not impossible, for many modern management regimes to recognize, much less accommodate, the contribution of artisanal

fisheries to social welfare, the ability of tribal and PNPTC management to do this should be understood as contributing to good fisheries management, both biologically and socially.

7.2 Contributions of the tribal and PNPTC perspectives

The tribal perspective, particularly as expressed through the regional perspective of PNPTC, makes valuable key contributions and some innovations to effective fisheries management in all seven areas of management activity. In data gathering and analysis, PNPTC's pre-season estimates are more accurate because of closer attention to local factors, and all parties now rely on their in-season updating methods. In long-range development research and planning, PNPTC has spearheaded the development of co-operative watershed planning, now widely adopted as a goal in Washington fisheries management. In enhancement, PNPTC tribes contribute to general fisheries production, and also to concentrating part of the tribal catch in two bays, leaving more of the grounds free for other fisheries. In harvest planning, PNPTC's geographically dispersed eutemporal fisheries are an innovative tool for stock management and genetic conservation. Management for weak stocks is another area in which tribes have created new management objectives, which now receive general support. In enforcement, PNPTC/tribal joint hiring of officers has enabled them to work effectively without fearing pressure to make exceptions for those in tribal government and thus demoralize enforcement. Enforcement has made enormous progress and promises to become not only far more effective than conventional fisheries enforcement by state agencies, but also more effective than enforcement at the tribal level alone. In addition, co-operative relations with other agencies' fisheries enforcement has enhanced all agencies' effectiveness. In environmental protection, PNPTC has recently become more effective at documenting impacts of development on fisheries habitat, through agreements with other agencies and the developers themselves. They are able to recruit local support to help document, prevent, and mitigate damage more thoroughly. In allocation, PNPTC has created the arena of discussion which has enabled member tribes to work out both formal and informal allocation agreements among themselves, and among sectors of their own fisheries. The tribal perspective on the location and nature of the fisheries right puts tribes and PNPTC under a unique obligation to formulate principles of equity. PNPTC and its member tribes consequently contribute to the theory and practice of how the classic and largely unresolved allocation dilemma in fisheries management can be addressed.

PNPTC both supports the tribal perspective in fisheries management and helps to give this perspective a regional context. As such it is a mediator between the vertical perspective of individual tribes and the horizontal perspective of WDF. As a regional organization, it can adapt to the needs for a regional or horizonal perspective in certain issues (allocation, weak stock management, dispersed fisheries), while also remaining in touch with the more local tribal perspective.

7.3 Means to reinforce control of fishing effort

PNPTC and its member tribes have found effective means to reinforce control of fishing effort by socio-political means, and to reduce incentives for competitive overinvestment for first capture. First, allocation to river fisheries has removed incentives for overcapitalization in

one sector of the fisheries. Second, eutemporal fisheries, the prohibition of seine gear, and the small fishing territory has reduced incentives for overcapitalization in the marine sector. Third, socio-political pressure on repeat offenders and the protection of tribal enforcement officers by PNPTC has made tribal enforcement extremely effective.

7.4 A management co-operative is more effective and economical

PNPTC as a management co-operative is more effective and economical than any individual tribal management regime working alone. Many of the technical staff at the central office, whose expertise is used both to help individual tribes, and to develop comprehensive programs, would be too expensive for one tribe alone to retain. The Bureau of Indian Affairs prefers to fund groups of tribes on a more comprehensive basis for more comprehensive programs than to fund individual tribes. There is more credibility and stability in regional and comprehensive programs.

8. Conflict Resolution: Adaptability

This is the area where PNPTC best demonstrates its adaptability. Since conflict resolution has already been discussed to some extent under "Allocation", we confine this section to a brief treatment of the area of conflict which was most notably unresolved for a year. The successful resolution of this conflict spurred PNPTC to rewrite its constitution to reflect its more evolved conflict-resolution mechanisms.

Because of the strength of its informal conflict-resolution mechanisms described in earlier sections, PNPTC had relied on the eventual resolution of differences through discussion and slow consultative policy development through consensus. Then came an issue in which two tribes were pitted against two tribes and the differences seemed irresolvable, with no way to break the tie. The substance of the issue, the choice of Commissioner, is less important than the process of resolving the problem. Hence we describe the issue in the briefest possible terms.

Two tribes supported a Commissioner who had held the position for several years and was respected for his energy, competence, extensive contacts, and knowledge of the issues. The two other tribes supported an equally respected candidate who would have a more vertical perspective and would spend more energy keeping the tribes in touch with the horizontal issues, and consulting their wishes on these issues.

The issue was finally resolved by choosing neither as commissioner but by rotating the commissioner and the assistant commissioner position on a regular basis among the four tribes, and by defining clearly the reporting procedures expected of the commissioner. A mechanism for breaking a tie was also developed. We consider this an exemplary adaptive response to new developments in the commissioner role and to a fundamental disagreement about how horizontally oriented PNPTC should become. The rotation gets the issue beyond personalities and familiarizes more board members with the issues and the dilemma of balancing the vertical and horizontal axes. In a sense, it democratizes the decision about the

commissioner role by putting more people in a position to decide knowledgeably what it should include. We expect that in a few years a well-informed consensus will emerge about where PNPTC should put more of its energy. This patient waiting for consensus to develop is one of PNPTC's most adaptive qualities and greatest strengths.

9. Overall Advantages of a Fisheries Management Co-operative: Summary

In reviewing the ways the PNPTC is a representative, accountable, effective, and adaptive management institution, we summarize below some of the advantages of the inter-tribal co-operative strategy.

(a) The PNPTC gives the tribes a superior ability to develop an effective, stable, long-term program for fisheries management and planning, and policies which are not vulnerable to changes in band or tribal governments. PNPTC is able to develop and carry through policies which evolve over a long period with a great deal of discussion among board or fish committee representatives in consultation with other fishermen and community members. These cannot be reversed at the whim of a new tribal government which has little familiarity with fisheries issues. PNPTC staff are exposed to policy debates coming from the fish committees, but are shielded from daily tribal politics and allowed to focus on carrying out good management.

(b) The PNPTC can do a more effective job of management than tribes alone because it can co-ordinate information and decisions on migratory stocks and people who fish over the same area and on the same stocks in an overall, comprehensive way. As well, it can do a job superior to the state in enforcement, in allocation, in watershed management, in habitat protection, in stock management, and in reducing incentives for overcapitalization.

(c) The PNPTC can negotiate with state and federal fisheries departments from a position of greater strength than can any one tribe alone. This is so not only because it represents larger numbers and more tribes, but also because it is dealing with a larger range of issues, has a variety of special expertise on its staff, and is doing more comprehensive and long-range planning. This is especially important for the smaller tribes, which have little power by themselves. Ultimately, government agencies prefer to work with fewer regional authorities than with many smaller ones.

(d) The PNPTC can obtain more consistent funding as a group than each tribe can alone. Funding agencies prefer to work with a larger group instead of with each individual tribe, and they also like to think the body they are funding is looking at the bigger picture.

While the above points refer largely to the effectiveness of inter-tribal co-operative management in terms of good biological fisheries management, the following points refer more to its democratic nature, how it is representative and accountable.

(e) The PNPTC can keep up better communication and good will among fishermen of different bands/tribes than would be possible if these groups did not work together on a regular basis. This reduces conflict and makes a lot of give and take possible. Instead of all-out competition at all costs, fishermen in the same co-operative are more aware of one another's situation and needs, and are more willing to make room for each other instead of trying to monopolize all the best fishing opportunities. Allocation principles, as well as harvest management strategies, can be based on the best compromise between good management and the will of the tribes.

(f) The PNPTC staff is buffered from tribal politics, but it is not completely buffered from fishermen's desires. The PNPTC system effects a compromise between the exigencies of effective fisheries management and the participation of fishermen in policy-making.

(g) Through a system of checks and balances, all interested parties in the system are consulted, yet all are accountable to other parties in the system. Fishermen can control fisheries policy, but also be controlled by fisheries regulations.

10. The Future: Can Democratic Consultation Survive Pressures For Bureaucratization and Elite Formation?

A sizeable social science literature predicts that democratically-organized workplaces inevitably become bureaucratized and out of touch with their membership (e.g., Shirom 1972). Through "the iron law of oligarchy" (Michels 1962), centralization of decision-making then allows elites to form, influence policy, and affect the distribution of benefits. Democratic organizations such as co-operatives can be vulnerable to external pressures even if their members hold values different from those of mainstream society. The necessity to compete in the marketplace or to cope with the requirements of funding agencies and the norms of state and international bureaucracies and forums makes co-operatives such as PNPTC subject to these pressures.

Democratic organizations are not without defenses against these pressures, however. Awareness of these dangers causes some organizations to increase their insistence on tight controls from the grass roots, and have representatives regularly rotated (Scott 1990:28). Others develop work teams, committees, and other intermediate bodies to help decentralize their structures (Rothschild and Russell 1986). Others simply analyze their situation and make strategic choices at critical junctures in the organization's life that sustain and renew democracy (Rothschild-Whitt & Whitt 1986).

As the PNPTC approaches its third decade with a permanent central office building replacing the trailers which housed it for the first 15 years, choices are open. The nature of board membership is not cast in stone, nor are other features of the representativeness and accountability which have served well in the past. The system can and has adapted to new pressures from the grass roots for greater representation or more communication, just as it has adapted to conflict by rotating the commissioner position and reaching space and catch allocation agreements. As more of the conflicts are resolved and as some areas of

decision-making become more routinized, it will be possible to look once again at basic structural issues and to decide how to institutionalize the democratic vision of the founders. Some issues which now appear as communication problems, and are seen as the responsibility of the staff, might be partially solved simply by changing some features of representation and accountability. The US v. Washington decision and other forces, have indeed placed pressure on the tribes to adopt the economic and social relations of the dominant society, and the PNPTC has had to do this within its administrative office structure. Despite this, however, the management system has continued to express tribal values concerning equity, the importance of artisanal fisheries, consultation and consensus decision-making, and the importance of the vertical perspective.

Management policy so far has struck a balance between encouraging a degree of entrepreneurship in the big boat fleet while not permitting the business ventures of these few tribal fishermen to overwhelm tribal values as a whole. The vulnerability of both the large and the small Skokomish fleet as evidenced in the fluctuating number of boats suggests that the cautious, slow policy-making path of the PNPTC is a reasonable way of assessing and maintaining the balance. Indeed, the system of checks and accountability allows for continual bargaining and adjustment, and the slow institutionalizing of mechanisms to protect tribal values without sacrificing a degree of flexibility.

11. Conclusion

PNPTC has demonstrated an ability to combine accountable and effective management. The co-operative approach has certain advantages in allowing more co-ordinated and effective management, on the one hand. On the other hand, PNPTC has kept alive its original vision of staying as close to the people as possible, while adapting to changing demands which push it toward greater participation in the horizontal axis of management. Its ability to do this stems not only from the dedication of its members, but also from the system of checks and balances which spreads accountability throughout the system, and causes the management system to respond to the needs of the tribes.

The requirement that the central office and the board remain sensitive to the situation of the four tribes and all their fishermen places extraordinary demand on a few key actors--the executive director and the four tribal fisheries managers. PNPTC's greatest vulnerability lies in its dependence on these few individuals to carry the entire burden of communication. The system functions most smoothly where this burden is shared by other actors, as in the case of a board member who also sits on the tribal fish committee.

PNPTC's greatest strength is its faith in slow and deliberate policy development through consensus, and its ability to educate its communities and fishermen into this consensus. It has demonstrated that fishermen can indeed be credible and responsible makers of fisheries management policy, given the appropriate context. The management system of PNPTC may be one of the more ideal ways for fishermen to be accountable to as well as accountable for responsible and long-sighted fisheries management which will sustain their communities into the future.

NOTES

1. See "Tin-Wis Congress: An Environmental Perspective," Background Paper presented at the Conference For Our Children: Creating a Sustainable Future for British Columbia. Tin-Wis Guest House, Tofino, B.C. February 3-5, 1989 and the Tin-Wis Accord between Native, environmental, and trade union groups which emerged from this conference.

2. Although some regional sports events bring communities together, these are not exclusive to the PNPTC tribes and do not involve whole communities. The Jamestown Klallam Tribe's annual picnic is the only event of this nature.

3. The Pacific Salmon Commission is the forum in which the United States and Canada continually negotiate the implementation of the basic terms of the Pacific Salmon Treaty. The treaty covers Pacific Salmon stocks which migrate through waters off Alaska, British Columbia, and Washington. The treaty's main purpose is to decrease interception of salmon stocks sufficiently to create incentives for each nation to enhance its own salmon stocks. The Pacific Fisheries Management Council is the U.S. federal body responsible for regulating salmon stocks in the extended economic zone (three to 200 miles) off the coast of California, Oregon, and Washington. It works with state and tribal governments which have jurisdiction over salmon management inside this zone.

4. Of the $1.9 million annual budget, $800,000 covers harvest management and habitat protection. The latter function is partially supported by funding appropriated by the Washington state legislature to implement the Timber/Fish/Wildlife agreement between the tribes, timber companies, environmental groups, and state regulatory agencies. $300,000 of the budget operates the three tribal hatcheries. The remaining $800,000 is used for habitat protection, hatchery rehabilitation, and water quality protection. The PNPTC has additional funding for activities such as participation in the PSC and to conduct research.

5. Tribal members may purchase a licence from the state to escape area restrictions, but the catch is still counted against the tribal catch. Since 1979, this practice is rare.

6. In one tribe whose exclusive territorial runs have been severely damaged by habitat alterations, fishermen may have to wait an entire season for their opportunity to fish one of the few viable spots. This situation is beginning to look overly redistributive, to the point that few fishermen can make even a partial living from fishing. In such a case, the tribe may move to limit river fishing licences.

7. See Pinkerton 1987a for a discussion of ways in which Canadian Department of Fisheries and Oceans regulations have incited overinvestment, and ways in which Alaska Department of Fish and Game regulations have limited it. (See also Pearse 1972 and Pinkerton 1987b.)

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